ADMISSION GUIDANCE SYSTEM

(ANDROID APP)

A Project Report

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Maharashtra State Board of Technical Education

(2017-2018)

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On

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In a partial fulfilment for the award of the degree

Of

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CERTIFICATE

This is to certify that the project entitled "**ADMISSION GUIDANCE SYSTEM**" being submitted by following member is worthy of consideration for the award of the degree of "Diploma in Computer Engg. And is a record of original bonafide carried out under our guidance and supervision. The results contained in this respect have not been submitted in part or full to any other university or institute for the award of any degree, diploma certificate.

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Prof. Ramjan A. Khatik

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Declaration

I declare that this project report entitled **“ADMISSION GUIDANCE SYSTEM”** represents my ideas in my own words and where others' ideas or words have been included, I have adequately cited and referenced the original sources. I also declare that I have adhered to all principles of academic honesty and integrity and have not misrepresented or fabricated or falsified any data/fact in my submission. I understand that any violation of the above will be cause for disciplinary action by the Institute and can also evoke penal action from the sources which have thus not been properly cited or from whom proper permission has not been taken when needed.

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Date:

Place: New Panvel

Acknowledgement

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I also take this opportunity to thank my Friends for their support and encouragement at every stage of my life.

Date:

ABSTRACT

The system as the name clarifies is developed School, Colleges and Universities to help automate the admission procedure. The system is an internet-based application which can be accessed from anytime anywhere basis. The system has three tier access models. Applicants, User, System where the goal of 'Online Admission System' is to automate the Academic Institute's admission structure and its related operation and functionality. The objective of the initiative is to provide support to the administration and admission seeking candidates by providing a faster, transparent and easy way of keeping records and use them for reference and further proceedings.

Where the Admission Guidance System (AGS) includes various utilities' for User like **College Info, Admission Procedure, Registration, Merit List Generator, Live Chatbot, Sms Confirmation, Aptitude test, Scholarship,** Help center which will help Student to get proper & best guidance among the Admission, where this system includes Aptitude test which help's the candidate to get a right decision to select learning Field & the chatBot System gives user to interacts with the chatbot for solving their ambiguity & doubts of candidate by chatting to chatbot, which all this communication performed online over an internet server.

Internet connection is necessary because this application works on the server, where all the process is worked thoroughly where all the process should have done from the server side like the chatbot & admission procedure dates, etc., which will be held by the server side that's why the internet connection is necessary. In **College info** we will show the college detail, & also we serve other option in our app as we mentioned above like **scholarship** which help the candidate/student to get apply for scholarship easily, or for any query he/she get contact to the college. So, he or she can use **FAQ** option in our app, & also we provide notification as per when the event is there like to submit application form or any key event.

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CHAPTER: 1

INTRODUCTION

Admission guidance system will guide the applicants through the admission process, providing crucial information regarding the college, important dates and admission criteria.

In our Application we will guide the students for taking Admission in their preferred Course. One of the important objective of the admission guidance system is to communicate with all the students scattered geographically. The application we will include the ongoing admission process, important notices and ongoing events in the institute. The application is based on Android.

Android: We are using this language because most of the people have their own android mobile. Which make our Application more easily to use and more valuable. Android's source code is released by Google under an open source license, and its open nature has encouraged a large community of developers and enthusiasts to use the open-source code as a foundation for community-driven projects, which deliver updates to older devices, add new features for advanced users. We are using Android Studio (IDE) to develop this application. Languages used in Android Studio are Java, C/C++ & for designing is XML.

Firebase: Firebase is a Backend-as-a-Service (BaaS) and grew up into a next-generation app-development platform on Google Cloud Platform. We use Firebase (Google API) as a Database in our project, this will authenticate save the user Data in Real-time Database. Firebase is a cost-free app measurement solution that provides insight into app usage and user engagement. Google Cloud Messaging (GCM), Firebase Cloud Messaging (FCM) is a cross-platform solution for messages and notifications for Android, iOS, and web applications, which currently can be used at no cost. There are more features of Firebase like Real-time database, Firebase Hosting, Notifications etc.

Chabot: We are Implementing CHATBOT in our project, where we are using API.AI (Google API) which is work as Artificial Intelligence which communicate with candidate. We have defined some Questions & Answers in Diaglogflow where the questions and answers is based on Admission process. Some basic Questions & Answers are defined in Diaglogflow. Diaglogflow give users new ways to interact with your

product by building engaging voice conversational interfaces powered by AI. You can connect with users on the Google Assistant, Amazon Alexa, Facebook Messenger, and other popular platforms and devices. Dialogflow (formerly Api.ai, Speaktoit) is a Google-owned developer of human–computer interaction technologies based on natural language conversations.

We are creating this application for respective institute by which they can have the judgment how many students are interested in their institute. We are implementing some innovative idea like online Chabot where this feature helps the students in answering the Query. We have to download this application by scanning a QR code that will be printed on institute Pamphlet. So, let us get into the working of this App.

When you will scan the QR code which is printed on the college pamphlet you will be redirected to the play store after installing this app you will get the Disclaimer page which will give you some warnings related to the admission process, then you will get the signup page by entering some credentials like his/her email address and password and then clicking on register button you now registered but you have to verify by going to your email address and clicking to the link you will get registered. After registration to our App you will be straight directed to the login page where then you can login and enter to the main page of the App "Home page". Home page will provide you different features or options related to Admission Process. Some of the features or options are mentioned below:

Predictor: In Predictor the candidates will be suggested the suitable branch according to their SSC or HSC marks.

Admission Steps: This option will help the candidate to know the information of online and offline admission procedure and also give information like admission form filling, document required, admission scheduled dates, admission guidelines, fees structure of college.

Chat with Bot: We are Implementing Chat with Bot in our project, where we are using API.AI (Google API) which is work as Artificial Intelligence which communicate with candidate. We have defined some Questions & Answers in Diaglogflow where the questions and answers is based on Admission process. Some basic Questions & Answers are defined in Diaglogflow. Diaglogflow give users new ways to interact with your product by building engaging voice conversational interfaces powered by AI. You can connect with users on the Google Assistant, Amazon Alexa, Facebook Messenger, and other popular platforms and devices. Dialogflow (formerly Api.ai, Speaktoit) is a Google-owned developer of human–computer interaction technologies based on natural language conversations.

College Location: This option will show the college location using the Maps service. It also gives the direction of the college where the user has to put his current location for the direction of the college.

CHAPTER: 2

EXISTING SYSTEM

There can be the possibilities of existing systems having some similar features and ideology like "Admission Guidance" but not exactly same. The similarity of features or ideologies in this App comparing with some existing App can be there due to the needs of making a good and requirement fulfilling App.

In this App there are some features added for creating to fulfil needs in admission aspects. Few features in this App are similar to some existing system. There is a feature of key dates which will show the events with Dates which will take place. There is a same feature existing in some App. In this App this feature is used to know the days with the Events which will take place. The other feature is Website which will give the important websites name and link which is related to admission process the similar feature is in Gujarat Engineering Admission App.

There are some ideologies which are similar between our App and Gujarat Engineering Admission App. Our App also provides the information of college, college location where you can get the college location using the maps service, chatbot is an AI (Artificial Intelligence) feature in our app which will talk over voice communication with the candidate and solve the queries related to admission process which will help the candidates. Our App "AI-ARKP Admission Guidance App" not only provide college location college information and chatbot but it also provides an feature called as predictor where the candidate will be given a set of question in which the result will predict the suitable branch for the candidate. We aslo have many more features like Scholarship feature will help knowing the scholarship Rules/Steps and some scholarship websites, Branches feature will show the different branches available in First Shift and Second Shift with showing numbers of seats available, cut-off feature will show the cut-off of college where the cut-off will be updated as the year changes.

The creators of this App "AI-ARKP Admission Guidance" have not adopted or inspired from any other existing system. Yes, it is being agreed that above mentioned featured are similar to some existing system, and that is done for the better interaction between the user and the service provider and for fulfilling the requirement to make it a good and genuine App.

AI-ARKP Admission Guidance is an App which is meant to be created for betterment of the candidates where this App will help the candidates in Admission Process. So, let us get into the working of this App now.

When you will scan the QR code you will be redirected to the play store after installing this app you will get the Disclaimer page which will give you some warnings related to the admission process, then you will get the signup page by entering some credentials like his/her email address and password and then clicking on register button you now registered but you have to verify by going to your email address and clicking to the link you will get registered. After registration to our App you will be straight directed to the login page where then you can login and enter to the main page of the App "Home page".

The main page will have several options which will be: -

Predictor: In Predictor the candidates will be suggested the suitable branch according to their SSC or HSC marks.

College Info: In this option the candidate will get in brief information about the college.

Cut-off: This option will help the candidates to know the cut-off of the college where the cut-off will update as per the year changes.

Admission Steps: This option will help the candidate to know the information of online and offline admission procedure and also give information like admission form filling, document required, admission scheduled dates, admission guidelines, fees structure of college.

Key Dates: In this option the events with dates are scheduled for college.

Branches: In this option there are two category First Shift and Second Shift where both the shifts comprise of different branches like (Computer, Civil, and Mechanical). In Branches it also specifies the number of seats available and some information regarding different branches.

College Location: This option will show the college location using the Maps service. It also gives the direction of the college where the user has to put his current location for the direction of the college this is only applicable for car users. If you are using any other transport media, there are options available for the direction.

Scholarship: This option will give the information related to scholarship such as Rules/Steps and Scholarship websites link with their names.

Chat with Bot: We are Implementing Chat with Bot in our project, where we are using API.AI (Google API) which is work as Artificial Intelligence which communicate with candidate. We have defined some Questions & Answers in Diaglogflow where the questions and answers is based on Admission process. Some basic Questions & Answers are defined in Diaglogflow. Diaglogflow give users new ways to interact with your product by building engaging voice conversational interfaces powered by AI. You can connect with users on the Google Assistant, Amazon Alexa, Facebook Messenger, and other popular platforms and devices. Dialogflow (formerly Api.ai, Speaktoit) is a Google-owned developer of human–computer interaction technologies based on natural language conversations.

Websites: This option will include the important websites link with their names. The websites are related to Admission Processes and Scholarship details.

Our App also includes Drawer where it consists of the following options:

My Account: In this Option it consists of update password and update email these options allows candidates to modify their credentials.

Notification: This option will store the previous notifications which has already been displayed.

Update App: After clicking on this option the candidate will be redirected to the play store where the user can update the app.

FAQ's: This option will include two more option in it FAQ's and Ask Questions in FAQ's some frequently asked questions with their answers are added and in Ask Questions the candidate can ask the questions by clicking on the Ask Questions option this will redirect to Mail where the candidate can ask his questions and send it to the default receiver email address. The Receiver then responds to the asked questions with appropriate solution and then send it to the sender. It also consists of Toll Free No of college where the candidates can ask some queries.

Share: This option will allow the candidate to share this app with different social media. The share option will generate a link that will redirect to play store for installation.

Feedback: This option will include the rating and comment option where the candidate can give feedback about the App.

About Us: This option will include the version of App and Developers.

Logout: This option will allow the candidate to logout the App. After logout she/he will be redirected to login page.

Chapter: 3

Problem Definition

When a student clears his/her SSC (10TH) EXAM and wants to pursue admission in diploma, the admission process is online which involves many CAP rounds and a tedious procedure which is very difficult to understand and lengthy. Almost everyone now own a smartphone and mobile applications are widely used, that's the reason we are developing a user friendly mobile application named as Admission Guidance.

In the application we guide students through the admission process, we first provide a criteria list for admission with their respective field (like Computer, civil etc.) followed by the selection of field, we provide a list of required documents for admission and then how to apply (registration) for admission, after successful registration student must wait for list (round 1).

If the name is displayed on the first list, the student's admission is confirmed in the respective field and student proceeds for next process which is done & guided by college. During admission process if the student has any queries, they can be sought to through an inbuilt chat with bot System. In chat system the student can ask queries to chat with bot and discuss his/her problem. The application will also provide college information, Key dates, important websites, college location, branches, and scholarship. This application will be regularly updated and notify users by sending notification in user's mobile. Using this application for the admission process can make it hassle-free. Candidates can save their time and money by receiving the ongoing events in college. We have implemented a feature called as predictor in this the candidate will be given a set of MCQ'S on the bases of result the candidate will be suggested to select a particular branch.

Chapter: 4

Developed System

4.1 Analysis and Design

Analysis:

4.1.1 Feasibility study

Feasibility is a measure of how beneficial the development of the information system will be to an organization. It is the analysis of risks, costs & benefits relating to economics, technology & user operation. This is done by investigating the existing system in the area under investigation or generally ideas about a new system. It is a test of a system proposal according to its workability, impact on the organization, ability to meet user needs, and effective use of resources. Feasibility study is conducted once the problem is clearly understood. Feasibility study is a high-level capsule version of the entire system analysis and design process. The objective is to determine quickly at a minimum expense how to solve a problem. The purpose of feasibility is not to solve the problem but to determine if the problem is worth solving.

Three key considerations are involved in the feasibility analysis:

- Economic Feasibility
- Technical Feasibility
- Operational Feasibility

4.1.2 Economic feasibility

Economic analysis is the most frequently used evaluating the effectiveness of proposed system, more commonly known as Benefit analysis. The Benefit analysis is used to determine benefits and savings which are expected from candidate system and compare them with the costs. If the benefits are more than the cost, then decision is made to design and implement the system. The cost and benefits may be direct or indirect and tangible or intangible.

4.1.3 Technical feasibility

The technically feasibility study basically centres on alternatives for hardware, software and design approach to determine the functional aspects of system. It involves financial considerations to accommodate technical enhancements. AI-ARKP Admission Guidance being an Android based application, it uses Firebase, 4GB RAM 3 GB Hard disk; And Firebase is used as real time database, Authentication, cloud Messaging, etc.

4.1.4 Operational feasibility

Operational Feasibility is a measure of how people are able to work with system. This type of feasibility demands if the system will work when developed and installed. In this project, the management will know the details of each project where he may be presented, and the data will be maintained as decentralized and if any inquires for that particular contract can be known as per their requirements and necessaries. Since website is very user friendly so users will find it comfortable to work on this site.

- **Why did we choose Android Domain?**

Android is the most successful mobile operating system in the market today Well, it turns out that the market share of Android is 82.8 per cent while that of iOS is just 13.9 per cent (Source: International Data Corporation). One can say that this comparison is inappropriate since iOS is just for Apple phones. The success of iOS depends on a particular device, a situation that Android doesn't face. Android is not powered by Google alone. The Open Handset Alliance plays a key part in the development of Android. According to Wikipedia, "The Open Handset Alliance (OHA) is a consortium of 84 firms to develop open standards for mobile devices. Member firms include Google, HTC, Sony, Dell, Intel, Motorola, Qualcomm, Texas Instruments, Samsung Electronics, LG Electronics, T-Mobile, Sprint Corporation, NVidia, and Wind River Systems." The article also adds: "Android, the flagship software of the alliance, is based on an open source licence and has competed against mobile platforms from Apple, Microsoft, Nokia (Symbian), HP (formerly Palm), Samsung Electronics/Intel (Tizen/Bada) and BlackBerry. It is clear that the backing of handset manufacturers plays a key role in the success of Android. Our main purpose to use android domain is that it is free Open Source OS as well as the Development Tool (Android Studio) is also free. Android supports a large number of platforms including 32- and 64-bit: ARM architectures, x86, x86-64, MIPS and MIPS64. This enables Android to be used in devices other than limited mobile phones. From 2012 onwards, Android

tablets using Intel processors have been available. Android-x86 can run on desktop PCs. Android's RAM requirements start from 512MB (normal cases), which is low compared to Ubuntu Touch (1GB).

We are using the following Languages & Database: -

Languages:

- **Xml:** In computing, Extensible Mark-up Language (XML) is a mark-up that defines a set of rules for encoding documents in a format that is both human-readable and machine-readable. Using Android's XML vocabulary, you can quickly design UI layouts and the screen elements they contain, in the same way you create web pages in HTML — with a series of nested elements.

- **Java:** High level programming languages like Java mean that we can write these instructions in an abstract manner using words and symbols, and the computer will take care of translating these instructions that we can understand all the way down to electrical impulses that the processor can understand. Java for Android apps is both similar and quite different from other types of Java applications. Android applications are developed using the Java language. As of now, that's really your only option for native applications. Java is a very popular programming language developed by Sun Microsystems (now owned by Oracle). Developed long after C and C++, Java incorporates many of the powerful features of those powerful languages while addressing some of their drawbacks. Still, programming languages are only as powerful as their libraries. These libraries exist to help developers build applications. Some of the Java's important core features are 1. It's easy to learn and understand 2. It's designed to be platform-independent and secure, using virtual machines 3. It's object-oriented. Android relies heavily on these Java fundamentals. The Android SDK includes many standard Java libraries (data structure libraries, math libraries, graphics libraries, networking libraries and everything else you could want) as well as special Android libraries that will help you develop awesome Android applications.

Database:

- **Firebase:** Firebase is a Backend-as-a-Service (BaaS) and grew up into a next-generation app-development platform on Google Cloud Platform. We use Firebase (Google API) as a Database in our project, this will authenticate save the user Data in Real-time Database. Firebase is a cost-free

app measurement solution that provides insight into app usage and user engagement. Google Cloud Messaging (GCM), Firebase Cloud Messaging (FCM) is a cross-platform solution for messages and notifications for Android, iOS, and web applications, which currently can be used at no cost. There are more features of Firebase like Real-time database, Firebase Hosting, Notifications etc.

Design:

4.1.5 Diagrams

There are various types of diagrams used for representation your software in a graphical
Manner on a paper before coding

- E-R Diagrams
- Data Flow Diagram
- UML Diagrams
    - Use case Diagram
    - Activity Diagram

4.1.6 ER Diagrams

The Entity-Relationship (ER) model was originally proposed by Peter in 1976 [Chen76] as a way to unify the network and relational database views. Simply stated the ER model is a conceptual data model that views the real world as entities and relationships. A basic component of the model is the Entity-Relationship diagram which is used to visually represent data objects. Since Chen wrote his paper the model has been extended and today it is commonly used for database design for the database designer, the utility of the ER model is:

- It maps well to the relational model. The constructs used in the ER model can easily be transformed into relational tables.
- It is simple and easy to understand with a minimum of training. Therefore, the model can be used by the database designer to communicate the design to the end user.
- In addition, the model can be used as a design plan by the database developer to implement a data model in a specific database management software.

Connectivity and Cardinality

The basic types of connectivity for relations are:

- one-to-one
- one-to-many, and

- many-to-many

A *one-to-one* (1:1) relationship is when at most one instance of an entity A is associated with one instance of entity B. For example, "employees in the company are each assigned their own office. For each employee there exists a unique office and for each office there exists a unique employee.

A *one-to-many* (1:N) relationships is when for one instance of entity A, there are zero, one, or many instances of entity B, but for one instance of entity B, there is only one instance of entity. An example of a 1:N relationships is a department has many employees each employee is assigned to one department.

A *many-to-many* (M:N) relationship, sometimes called non-specific, is when for one instance of entity A, there are zero, one, or many instances of entity B and for one instance of entity B there are zero, one, or many instances of entity A.

ER Notations

There is no standard for representing data objects in ER diagrams. Each modelling Methodology uses its own notation. The original notation used by Chen is widely used in Academic's texts and journals but rarely seen in either CASE tools or publications by non-academic. Today, there are a number of notations used, among the more common are Bachman, crow's foot, and IDEFIX. All notational styles represent entities as rectangular boxes and relationships as lines Connecting boxes. Each style uses a special set of symbols to represent the cardinality of a Connection. The notation used in this document is from Martin. The symbols used for the basic. ER constructs are:

- **Entities** are represented by labelled rectangles. The label is the name of the entity. Entity names should be singular nouns.
- **Relationships** are represented by a solid line connecting two entities. The name of the Relationship is written above the line. Relationship names should be verbs
- **Attributes**, when included, are listed inside the entity rectangle. Attributes which are Identifiers are underlined. Attribute names should be singular nouns.
- **Cardinality** of many is represented by a line ending in a crow's foot. If the crow's foot is omitted, the cardinality is one.

- **Existence** is represented by placing a circle or a perpendicular bar on the line. Mandatory existence is shown by the bar (looks like a 1) next to the entity for an instance is required. Optional existence is shown by placing a circle next to the entity That is optional.

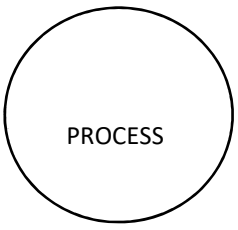
4.1.7 Data flow diagram

A DFD also known as 'bubble chart', has the purpose of clarifying system requirements and identifying major transformations. It shows the flow of data through a system. It is a graphical tool because it presents a picture. The DFD may be partitioned into levels that represent increasing information flow and functional detail. Four simple notations are used to complete a DFD. These notations are given below:

DATA FLOW: The data flow is used to describe the movement of information from one part of the system to another part. Flows represent data in motion. It is a pipe line through which information flows. Data flow is represented by an **arrow**.

DATA FLOW

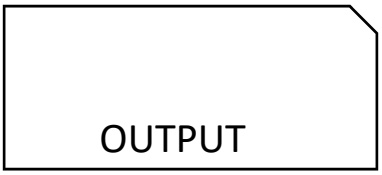
PROCESS: A **circle** or bubble represents a process that transforms incoming data to outgoing data. Process shows a part of the system that transform inputs to outputs.



EXTERNAL ENTITY: A **square** defines a source or destination of system data. External entities represent any entity that supplies or receive information from the system but is not a part of the system.

DATA STORE: The data store represents a logical file. A logical file can represent either a data store symbol which can represent either a data structure or a physical file on disk. The data store is used to collect data at rest or a temporary repository of data. It is represented by open rectangle.

OUTPUT: The output symbol is used when a hard copy is produced, and the user of the copies cannot be clearly specified or there are several users of the output.



Our Project's DFDs

Level 0: -

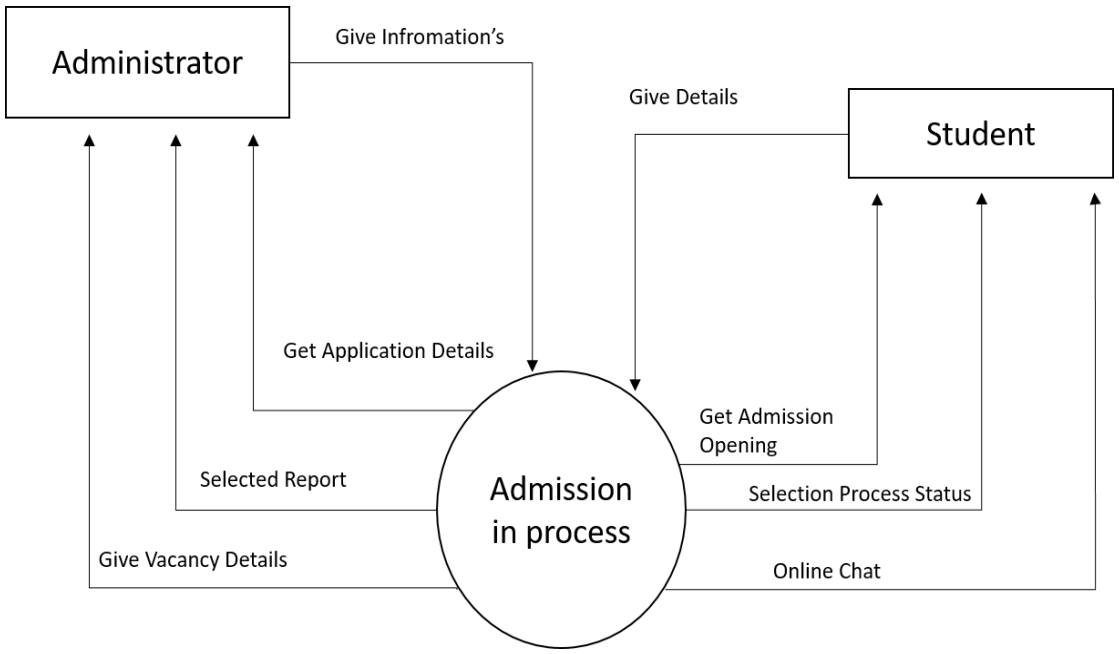


Fig 4.1: DFD level 0

Level 1: -

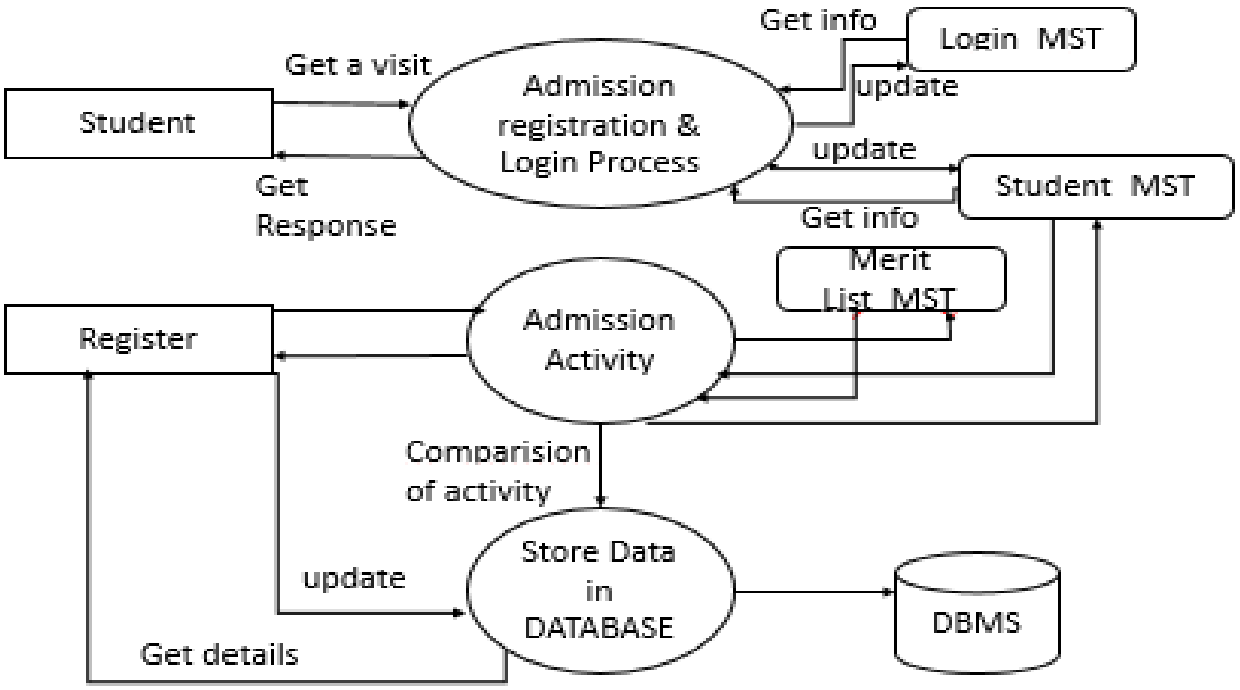


Fig 4.2: DFD level 1

4.1.8 UML diagrams

UML stands for **Unified Modelling Language**. UML is a language for specifying, visualizing and documenting the system. This is the step while developing any product after analysis. The goal from this is to produce a model of the entities involved in the project which later need to be built. The representation of the entities that are to be used in the product being developed need to be designed.

There are various kinds of methods in software design.

They are as follows:

- Use case Diagram
- Activity Diagram

Use Case Diagrams

A Use case is a description of set of sequence of actions. Graphically it is rendered as an ellipse with solid line including only its name. Use case diagram is a behavioral diagram that shows a set of use cases and actors and their relationship. It is an association between the use cases and actors. An actor represents a real-world object. Primary Actor – Sender, Secondary Actor – Receiver.

Use case diagrams model behavior within a system and helps the developers understand of what the user requires. The stick man represents what's called an actor.

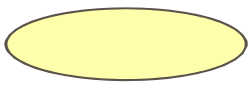
Use case diagram can be useful for getting an overall view of the system and clarifying who can do and more importantly what they can't do.

Use case diagram consists of use cases and actors and shows the interaction between the use case and actors.

- The purpose is to show the interactions between the use case and actor.
- To represent the system requirements from user's perspective.
- An actor could be the end-user of the system or an external system.

Use case:

A description of sequence of actions, including variants, that a system performs that yields an observable result of value of an actor.



Actor:

A coherent set of roles that users of use cases play when interacting with the use cases.

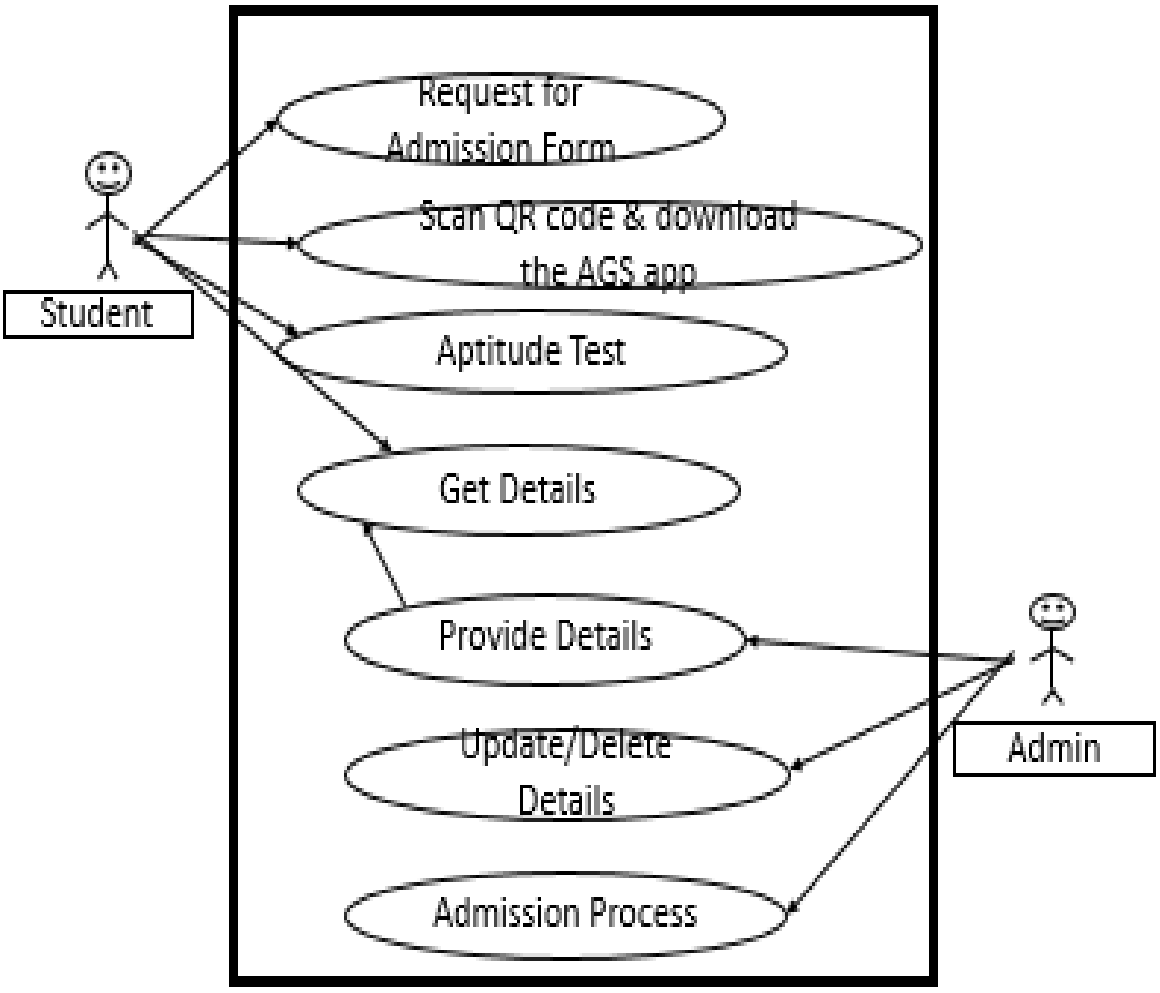


Fig 4.3: Our Project's Use Case Diagram.

Activity diagrams

Activity diagram is another important diagram in UML to describe dynamic aspects of the system. Activity diagram is basically a flow chart to represent the flow form one activity to another activity. The activity can be described as an operation of the system.

So, the control flow is drawn from one operation to another. This flow can be sequential, branched or concurrent. Activity diagrams deals with all type of flow control by using different elements like fork, join etc.

The basic purposes of activity diagrams are similar to other four diagrams. It captures the dynamic behavior of the system. Other four diagrams are used to show the message flow from one object to another, but activity diagram is used to show message flow from one activity to another.

Activity is a particular operation of the system. Activity diagrams are not only used for visualizing dynamic nature of a system, but they are also used to construct the executable system by using forward and reverse engineering techniques. The only missing thing in activity diagram is the message part.It does not show any message flow from one activity to another. Activity diagram is some time considered as the flow chart. Although the diagrams look like a flow chart, but it is not. It shows different flow like parallel, branched, concurrent and single.

Activity diagrams are mainly used as a flow chart consists of activities performed by the system. But activity diagram is not exactly a flow chart as they have some additional capabilities. These additional capabilities include branching, parallel flow, swim lane etc.

Before drawing an activity diagram, we must have a clear understanding about the elements used in activity diagram. The main element of an activity diagram is the activity itself. An activity is a function performed by the system. After identifying the activities, we need to understand how they are associated with constraints and conditions.

So before drawing an activity diagram we should identify the following elements:

- Activities
- Association
- Conditions
- Constraints

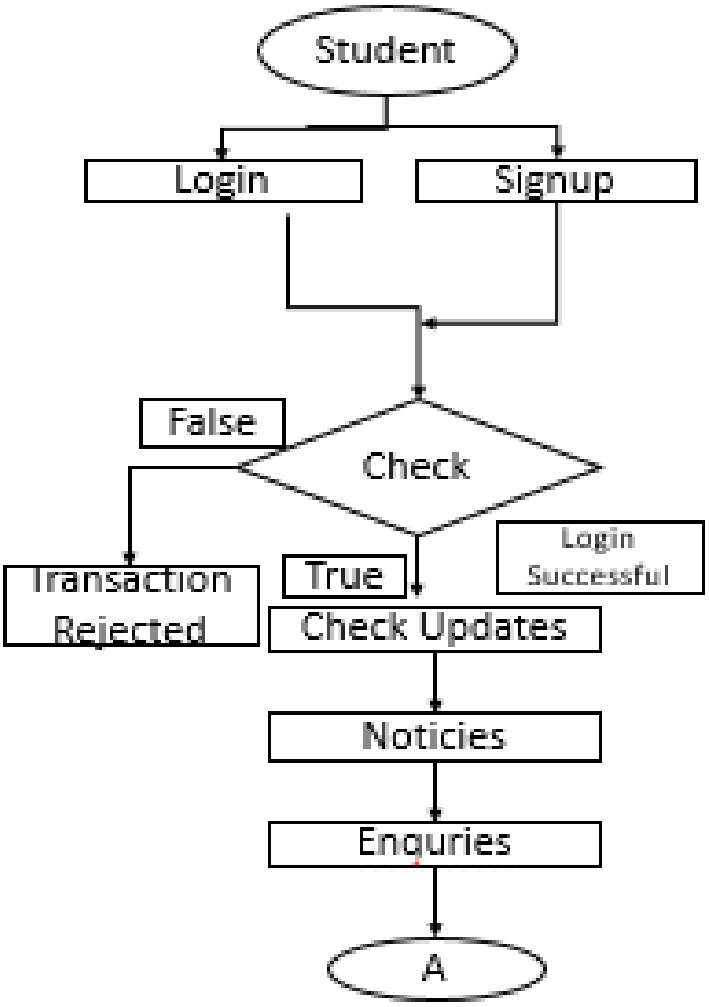


Fig 4.4: Activity diagram of the application.

4.2 Requirements

The Software Requirements Specification is produced at the culmination of the analysis task. The function and performance allocated to software as part of system engineering are refined by establishing a complete information description. A detailed functional and behavioural description, an indication of performance requirements and design constraints appropriate validation criteria and other data pertinent to requirements.

SOFTWARE REQUIREMENT:

Software's can be defined as programs which run on our computer. It acts as petrol in the vehicle. It provides the relationship between the human and computer. It is very important to run software to function the computer. Various software's are needed in this project for its development. Which are as follows:

Operating System: Windows 7 or higher version.

Front –End: Android Studio

Back-End: Firebase

We will be using Android Studio as our front hand because it is easier to use and provider feature to the user which is used for the development of the project.

Hardware Requirement:

In hardware requirement we require all those components which will provide us the platform for the Running the Application. The minimum hardware required for the development of this project is as follows:

Ram-minimum: 1GB

Internal Memory: 200MB

Version (Minimum): Jellybean or higher Version.

This all are the minimum hardware requirement required for our Application. We want to make our Application to be used in any type of Android Phones therefore we have taken minimum configuration to a large extent.1GB ram is used so that we can execute our project in a least possible ram. 200MB Internal Memory is used because application takes less space to be executed or stored. Therefore, minimum hard disk used.

The successful running of any project primarily depends upon hardware and software used in its compilation. The hardware used in the machine should be such that it supports the software that is to be mounted for assembling the project. This project deals with the hardware and software, which is available readily and easy on each and every machine given to the user.

Processor: -

Minimum: i5 or Higher.

The processor does all the processing for the contents of the program and when the clock speed increases so does the processing speed.

Memory Requirements: -

Minimum: 3GB

The memory selection is done and preferred for higher memory because the program before running is flushed into memory buffer of computer, then it is executed. More the memory, more will be the speed and hence less time for execution.

The application has been developed using:

- Front end: Android Studio
- Back End: Firebase

Hardware Interface: -

The system should have these hardware requirements: -

- The processor should be at least i5 or higher
- The processor speed should be greater than 600Mhz
- Ram should be greater than 4 GB

Software Interfaces: -

The software requires the support of the following software's for the database and other requirements

- Android Studio for user interface
- Firebase for database

4.3 Implementation

AI-ARKP Admission Guidance is an App which will provide information or Admission Process which will help the candidate in admission process. This App is created for the betterment of the of the candidate to understand the admission process. So, let us get into the working of this App.

When you will scan the QR code which is printed on the college pamphlet you will be redirected to the play store after installing this app you will get the Disclaimer page which will give you some warnings related to the admission process, then you will get the signup page by entering some credentials like his/her email address and password and then clicking on register button you now registered but you have to verify

by going to your email address and clicking to the link you will get registered. After registration to our App you will be straight directed to the login page where then you can login and enter to the main page of the App "Home page".

The main page will have several options which will be: -

Predictor: In Predictor the candidates will be given a set of MCQ's which will determine the suitable branch for the candidates like (Computer, Civil, Mechanical, etc.).

College Info: In this option the candidate will get in brief information about the college.

Cut-off: This option will help the candidates to know the cut-off of the college where the cut-off will update as per the year changes.

Admission Steps: This option will help the candidate to know the information of online and offline admission procedure and also give information like admission form filling, document required, admission scheduled dates, admission guidelines, fees structure of college.

Key Dates: In this option the events with dates are scheduled for college.

Branches: In this option there are two category First Shift and Second Shift where both the shifts comprise of different branches like (Computer, Civil, and Mechanical). In Branches it also specifies the number of seats available and some information regarding different branches.

College Location: This option will show the college location using the Maps service. It also gives the direction of the college where the user has to put his current location for the direction of the college this is only applicable for car users. If you are using any other transport media, there are options available for the direction.

Scholarship: This option will give the information related to scholarship such as Rules/Steps and Scholarship websites link with their names.

Chat with Bot: We are Implementing Chat with Bot in our project, where we are using API.AI (Google API) which is work as Artificial Intelligence which communicate with candidate. We have defined some Questions & Answers in Diaglogflow where the questions and answers is based on Admission process. Some basic Questions & Answers are defined in Diaglogflow. Diaglogflow give users new ways to interact with your product by building engaging voice conversational interfaces powered by AI. You can connect with

users on the Google Assistant, Amazon Alexa, Facebook Messenger, and other popular platforms and devices. Dialogflow (formerly Api.ai, Speaktoit) is a Google-owned developer of human–computer interaction technologies based on natural language conversations.

Websites: This option will include the important websites link with their names. The websites are related to Admission Processes and Scholarship details.

Our App also includes Drawer where it consists of the following options:

My Account: In this Option it consists of update password and update email this option allows candidates to modify their credentials.

Notification: This option will store the previous notifications which has already been displayed.

Update App: After clicking on this option the candidate will be redirected to the play store where the user can update the app.

FAQ's: This option will include two more option in it FAQ's and Ask Questions in FAQ's some frequently asked questions with their answers are added and in Ask Questions the candidate can ask the questions by clicking on the Ask Questions option this will redirect to Mail where the candidate can ask his questions and send it to the default receiver email address. The Receiver then responds to the asked questions with appropriate solution and then send it to the sender. It also consists of Toll Free No of college where the candidates can ask some queries.

Share: This option will allow the candidate to share this app with different social media. The share option will generate a link that will redirect to play store for installation.

Feedback: This option will include the rating and comment option where the candidate can give feedback about the App.

About Us: This option will include the version of App and Developers.

Logout: This option will allow the candidate to logout the App. After logout she/he will be redirected to login page.

Coding: -

SOURCE CODE (Navigation Drawer):

Xml Code:

```
<?xml version="1.0" encoding="utf-8"?>
<menu xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    tools:showIn="navigation_view">

    <group >
        <item
            android:id="@+id/nav_myaccount"
            android:icon="@drawable/ic_myaccount"
            android:title="My Account" />
        <item
            android:id="@+id/nav_notification"
            android:icon="@drawable/ic_notifications"
            android:title="Notification" />
        <item
            android:id="@+id/nav_upgradeapp"
            android:icon="@drawable/ic_updateapp"
            android:title="Update App" />
        <item
            android:id="@+id/nav_faq"
            android:icon="@drawable/ic_faq"
            android:title="FAQ's" />
    </group>

    <item android:title="Communicate">
        <menu>
            <item
                android:id="@+id/nav_share"
                android:icon="@drawable/ic_share"
                android:title="Share" />
            <item
                android:id="@+id/nav_feedback"
                android:icon="@drawable/ic_feedback"
                android:title="Feedback" />
            <item
                android:id="@+id/nav_aboutus"
                android:icon="@drawable/ic_aboutus"
                android:title="About us" />
            <item
                android:id="@+id/nav_logout"
                android:icon="@drawable/ic_logout"
                android:title="Logout" />

        </menu>
    </item>

</menu>
```

Java Code:

```
@SuppressWarnings("StatementWithEmptyBody")
    @Override
    public boolean onNavigationItemSelected(MenuItem item) {
        // Handle navigation view item clicks here.
        int id = item.getItemId();
        if (id == R.id.nav_myaccount) {
            Intent i =new Intent(this, MyAccountActivity.class);
```

```
            startActivity(i);
            finish();
            overridePendingTransition(R.anim.pull_in_right, R.anim.push_out_left);
        }else if (id == R.id.nav_notification) {

        } else if (id == R.id.nav_upgradeapp) {

        } else if (id == R.id.nav_faq) {
            Intent i =new Intent(this, FaqActivity.class);
            startActivity(i);
            finish();
            overridePendingTransition(R.anim.pull_in_right, R.anim.push_out_left);

        } else if (id == R.id.nav_share) {
            Intent myintent = new Intent(Intent.ACTION_SEND);
            myintent.setType("text/plain");
            String shareBody ="Your Body Here";
            String shareSub ="Your Subject Here";
            myintent.putExtra(Intent.EXTRA_SUBJECT,shareSub);
            myintent.putExtra(Intent.EXTRA_TEXT,shareBody);
            startActivity(Intent.createChooser(myintent,"Share Using"));

        } else if (id == R.id.nav_feedback) {
            Intent i =new Intent(this, FeedbackActivity.class);
            startActivity(i);
            overridePendingTransition(R.anim.pull_in_right, R.anim.push_out_left);

        } else if (id == R.id.nav_aboutus) {
            Intent i =new Intent(this, AboutusActivity.class);
            startActivity(i);
            overridePendingTransition(R.anim.pull_in_right, R.anim.push_out_left);

        }
        else if (id == R.id.nav_logout) {
            FirebaseAuth.getInstance().signOut();
            finish();
            startActivity(new Intent(this,LoginActivity.class));



        }


        DrawerLayout drawer = (DrawerLayout) findViewById(R.id.drawer_layout);
        drawer.closeDrawer(GravityCompat.START);
        return true;

    }

    //Animation listner methods
    @Override
    public void onAnimationStart(Animation animation) {

    }

    @Override
    public void onAnimationEnd(Animation animation) {

    }

    @Override
    public void onAnimationRepeat(Animation animation) {

    }

    @Override
    protected void onStart() {
        super.onStart();
```

```
        databaseReferenceChild.addValueEventListener(Home.this);
    }

    //showing news from firebase
    @Override
    public void onDataChange(com.google.firebase.database.DataSnapshot dataSnapshot) {
        if (dataSnapshot.getValue(String.class)!=null)
        {
            String key = dataSnapshot.getKey();
            if (key.equals("heading"))
            {
                String heaing = dataSnapshot.getValue(String.class);
                mValueView.setText(heaing);
                mValueView.setSelected(true);
            }
        }

    }
    @Override
    public void onCancelled(DatabaseError databaseError) {

    }
}
```

SOURCE CODE (Home Page):

Xml Code:

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout android:id="@+id/HomeFragment"
    android:orientation="vertical"
    android:layout_width="fill_parent"
    android:layout_height="fill_parent"
    xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:card="http://schemas.android.com/apk/res-auto">


    <!--flash News-->
    <LinearLayout
        android:layout_width="match_parent"
        android:padding="20dp"
        android:layout_marginTop="80dp"
        android:background="@color/colorback"
        android:layout_height="55dp">
        <TextView
            android:layout_width="50dp"
            android:text="News:"
            android:gravity="center"
            android:textSize="15dp"
            android:inputType="none"
            android:textStyle="bold"
            android:textColor="#000000"
            android:layout_marginTop="-8dp"
            android:layout_height="30dp"
            />

        <TextView
            android:id="@+id/News"
            android:layout_width="wrap_content"
            android:layout_height="55dp"
            android:layout_gravity="center"
            android:ellipsize="marquee"
            android:gravity="left|center"
            android:marqueeRepeatLimit="marquee_forever"
            android:scrollHorizontally="true"
            android:singleLine="true"
```

```
        android:paddingBottom="2dp"
        android:textColor="#ffffff"
        android:textSize="15dp" />
</LinearLayout>

<ScrollView
    android:id="@+id/scroll"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:fillViewport="true"
    android:background="#2b4e47"
    android:layout_weight="1.0">


    <LinearLayout
        android:orientation="vertical"
        android:padding="0.0dip"
        android:layout_width="fill_parent"
        android:layout_height="0.0dip"
        android:layout_margin="5.0dip"
        android:layout_weight="1.0">



        <!-- predictor & cutoff-->
        <LinearLayout
            android:layout_width="match_parent"
            android:layout_height="150.0dip"
            android:orientation="horizontal">
            <android.support.v7.widget.CardView
                android:layout_width="350.0dip"
                android:layout_height="fill_parent"
                android:layout_margin="3.0dip"
                android:layout_weight="1"
                card:cardBackgroundColor="@color/colorPrimaryDark"
                card:cardCornerRadius="5dp"
                card:cardElevation="2.0dip">

                <Button
                    android:padding="5dp"
                    android:layout_width="fill_parent"
                    android:layout_height="fill_parent"
                    android:text="Predictor"
                    android:id="@+id/predict"
                    android:onClick="gotopredict"
                    android:textColor="#000000"
                    android:backgroundTint="#ffffff"
                    android:drawableTop="@drawable/ic_predictor"
                    style="@style/homeButton" />

            </android.support.v7.widget.CardView>

            <android.support.v7.widget.CardView
                android:layout_width="350.0dip"
                android:layout_height="fill_parent"
                android:layout_margin="3.0dip"
                android:layout_weight="1"
                card:cardBackgroundColor="@color/colorPrimaryDark"
                card:cardCornerRadius="5dp"
                card:cardElevation="2.0dip">

                <Button
                    style="@style/homeButton"
                    android:id="@+id/cuttoff"
                    android:layout_width="fill_parent"
                    android:layout_height="fill_parent"
                    android:backgroundTint="#ffffff"
                    android:drawableTop="@drawable/ic_cutoff"
```

```
            android:padding="5dp"
            android:text="Cutoff"
            android:onClick="oncutoff"
            android:textColor="#000000" />

    </android.support.v7.widget.CardView>
</LinearLayout>

<!-- college info & college loc-->
<LinearLayout
    android:orientation="horizontal"
    android:layout_width="match_parent"
    android:layout_height="150.0dip">


    <android.support.v7.widget.CardView
        android:layout_width="350.0dip"
        android:layout_height="fill_parent"
        android:layout_margin="3.0dip"
        android:layout_weight="1"
        card:cardBackgroundColor="@color/colorPrimaryDark"
        card:cardCornerRadius="5dp"
        card:cardElevation="2.0dip">

        <Button
            android:padding="5dp"
            android:id="@+id/collegeinfo"
            android:layout_width="fill_parent"
            android:layout_height="fill_parent"
            android:text="College Info"
            android:onClick="oncollegeinfo"
            android:textColor="#000000"
            android:backgroundTint="#ffffff"
            android:drawableTop="@drawable/ic_info"
            style="@style/homeButton" />

    </android.support.v7.widget.CardView>

    <android.support.v7.widget.CardView
        android:layout_width="350.0dip"
        android:layout_height="fill_parent"
        android:layout_margin="3.0dip"
        android:layout_weight="1"
        card:cardBackgroundColor="@color/colorPrimaryDark"
        card:cardCornerRadius="5dp"
        card:cardElevation="2.0dip">

        <Button
            android:padding="5dp"
            android:layout_width="fill_parent"
            android:layout_height="fill_parent"
            android:textColor="#000000"
            android:id="@+id/collegeloc"
            android:backgroundTint="#ffffff"
            android:text="College Location"
            android:onClick="onCL"
            android:drawableTop="@drawable/ic_maps"
            style="@style/homeButton" />

    </android.support.v7.widget.CardView>

</LinearLayout>

<!-- Keydates & Branches-->
<LinearLayout
    android:orientation="horizontal"
    android:layout_width="match_parent"
    android:layout_height="150.0dip">
```

```
        <android.support.v7.widget.CardView
            android:layout_width="350.0dip"
            android:layout_height="fill_parent"
            android:layout_margin="3.0dip"
            android:layout_weight="1"
            card:cardBackgroundColor="@color/colorPrimaryDark"
            card:cardCornerRadius="5dp"
            card:cardElevation="2.0dip">

            <Button
                android:padding="5dp"
                android:layout_width="fill_parent"
                android:layout_height="fill_parent"
                android:text="Key Dates"
                android:id="@+id/keydates"
                android:textColor="#000000"
                android:backgroundTint="#ffffff"
                android:onClick="onKeyDates"
                android:drawableTop="@drawable/ic_keydates"
                style="@style/homeButton" />

        </android.support.v7.widget.CardView>

        <android.support.v7.widget.CardView
            android:layout_width="350.0dip"
            android:layout_height="fill_parent"
            android:layout_margin="3.0dip"
            android:layout_weight="1"
            card:cardBackgroundColor="@color/colorPrimaryDark"
            card:cardCornerRadius="5dp"
            card:cardElevation="2.0dip">

            <Button
                android:padding="5dp"
                android:layout_width="fill_parent"
                android:layout_height="fill_parent"
                android:text="Branches"
                android:id="@+id/branches"
                android:onClick="onBranches"
                android:textColor="#000000"
                android:backgroundTint="#ffffff"
                android:drawableTop="@drawable/ic_branches"
                style="@style/homeButton" />

        </android.support.v7.widget.CardView>

    </LinearLayout>

    <!-- Admission steps & Scholarship-->
    <LinearLayout
        android:orientation="horizontal"
        android:layout_width="match_parent"
        android:layout_height="150.0dip">

        <android.support.v7.widget.CardView
            android:layout_width="350.0dip"
            android:layout_height="fill_parent"
            android:layout_margin="3.0dip"
            android:layout_weight="1"
            card:cardBackgroundColor="@color/colorPrimaryDark"
            card:cardCornerRadius="5dp"
            card:cardElevation="2.0dip">

            <Button
                style="@style/homeButton"
                android:id="@+id/admissionsteps"
                android:layout_width="fill_parent"
```

```
            android:layout_height="fill_parent"
            android:backgroundTint="#ffffff"
            android:drawableTop="@drawable/ic_steps"
            android:padding="5dp"
            android:onClick="onAdmissionSteps"
            android:text="Admission Steps"
            android:textColor="#000000" />

    </android.support.v7.widget.CardView>

    <android.support.v7.widget.CardView
        android:layout_width="350.0dip"
        android:layout_height="fill_parent"
        android:layout_margin="3.0dip"
        android:layout_weight="1"
        card:cardBackgroundColor="@color/colorPrimaryDark"
        card:cardCornerRadius="5dp"
        card:cardElevation="2.0dip">

        <Button
            android:padding="5dp"
            android:layout_width="fill_parent"
            android:layout_height="fill_parent"
            android:text="Scholarship"
            android:id="@+id/scholarship"
            android:onClick="onScholarship"
            android:textColor="#000000"
            android:backgroundTint="#ffffff"
            android:drawableTop="@drawable/ic_scholarship"
            style="@style/homeButton" />

    </android.support.v7.widget.CardView>

</LinearLayout>

<!-- Livechat & Website-->
<LinearLayout
    android:orientation="horizontal"
    android:layout_width="match_parent"
    android:layout_height="150.0dip">


    <android.support.v7.widget.CardView
        android:layout_width="350.0dip"
        android:layout_height="fill_parent"
        android:layout_margin="3.0dip"
        android:layout_weight="1"
        card:cardCornerRadius="5dp"
        card:cardElevation="2.0dip"
        card:cardBackgroundColor="@color/colorPrimaryDark">

        <Button
            android:padding="5dp"
            android:layout_width="fill_parent"
            android:layout_height="fill_parent"
            android:textColor="#000000"
            android:id="@+id/websites"
            android:backgroundTint="#ffffff"
            android:text="Websites"
            android:onClick="onWebsite"
            android:drawableTop="@drawable/ic_web"
            style="@style/homeButton" />

    </android.support.v7.widget.CardView>

    <android.support.v7.widget.CardView
        android:layout_width="350.0dip"
        android:layout_height="fill_parent"
```

```
                    android:layout_margin="3.0dip"
                    android:layout_weight="1"
                    card:cardBackgroundColor="@color/colorPrimaryDark"
                    card:cardCornerRadius="5dp"
                    card:cardElevation="2.0dip">

                    <Button
                        android:padding="5dp"
                        android:layout_width="fill_parent"
                        android:layout_height="fill_parent"
                        android:textColor="#000000"
                        android:onClick="onLC"
                        android:id="@+id/chatbot"
                        android:backgroundTint="#ffffff"
                        android:text="Chat with Bot"
                        android:drawableTop="@drawable/ic_chatwithbot"
                        style="@style/homeButton" />

                </android.support.v7.widget.CardView>

            </LinearLayout>

        </LinearLayout>
    </ScrollView>


</LinearLayout>
```

Java Code:

```
package com.org.arkp.admissionguidance;

import android.content.Context;
import android.content.DialogInterface;
import android.content.Intent;
import android.content.SharedPreferences;
import android.graphics.Color;
import android.graphics.drawable.AnimationDrawable;
import android.net.ConnectivityManager;
import android.net.NetworkInfo;
import android.os.Bundle;
import android.provider.ContactsContract;
import android.support.annotation.NonNull;
import android.support.design.widget.NavigationView;
import android.support.v4.view.GravityCompat;
import android.support.v4.widget.DrawerLayout;
import android.support.v7.app.ActionBar;
import android.support.v7.app.ActionBarDrawerToggle;
import android.support.v7.app.AlertDialog;
import android.support.v7.app.AppCompatActivity;
import android.support.v7.widget.CardView;
import android.support.v7.widget.Toolbar;
import android.view.KeyEvent;
import android.view.LayoutInflater;
import android.view.MenuItem;
import android.view.View;
import android.view.Window;
import android.view.WindowManager;
import android.view.animation.Animation;
import android.view.animation.AnimationUtils;
import android.webkit.WebView;
import android.widget.Button;
import android.widget.ImageView;
import android.widget.RelativeLayout;
import android.widget.TextView;
import android.widget.Toast;
```

```
import com.firebase.client.DataSnapshot;
import com.firebase.client.Firebase;
import com.firebase.client.FirebaseError;
import com.firebase.client.ValueEventListener;
import com.github.clans.fab.FloatingActionButton;
import com.github.clans.fab.FloatingActionMenu;
import com.github.ksoichiro.android.observablescrollview.ObservableScrollView;
import com.github.ksoichiro.android.observablescrollview.ObservableScrollViewCallbacks;
import com.github.ksoichiro.android.observablescrollview.ScrollState;
import com.google.firebase.FirebaseApp;
import com.google.firebase.auth.FirebaseAuth;
import com.google.firebase.auth.FirebaseUser;
import com.google.firebase.database.DatabaseError;
import com.google.firebase.database.DatabaseReference;
import com.google.firebase.database.FirebaseDatabase;


public class Home extends AppCompatActivity
        implements NavigationView.OnNavigationItemSelectedListener,Animation.AnimationListener,
com.google.firebase.database.ValueEventListener {

    String answer;


    //Animation
    Animation animBounce;

   // public TextView t1;
    public FirebaseAuth firebaseAuth;

    private TextView mValueView;
    private FirebaseDatabase firebaseDatabase=FirebaseDatabase.getInstance();
    private DatabaseReference databaseReferenceRoot=firebaseDatabase.getReference();
    private DatabaseReference databaseReferenceChild=databaseReferenceRoot.child("heading");

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_home);


        Window w = this.getWindow();
        w.clearFlags(WindowManager.LayoutParams.FLAG_TRANSLUCENT_STATUS);
        w.addFlags(WindowManager.LayoutParams.FLAG_DRAWS_SYSTEM_BAR_BACKGROUNDS);
        //w.setStatusBarColor(Color.parseColor("#FFFA635E"));




        Toolbar toolbar = (Toolbar) findViewById(R.id.toolbar);
        setSupportActionBar(toolbar);


        DrawerLayout drawer = (DrawerLayout) findViewById(R.id.drawer_layout);
        ActionBarDrawerToggle toggle = new ActionBarDrawerToggle(this, drawer, toolbar,
R.string.navigation_drawer_open, R.string.navigation_drawer_close);
        drawer.addDrawerListener(toggle);
        toggle.syncState();

        NavigationView navigationView = (NavigationView) findViewById(R.id.nav_view);
        navigationView.setNavigationItemSelectedListener(this);
        View header=navigationView.getHeaderView(0);

        mValueView = (TextView) this.findViewById(R.id.News);

        //showing user loggin user in nav header
        SharedPreferences sharedPreferences=getSharedPreferences("AG",Context.MODE_PRIVATE);
       String s= sharedPreferences.getString("email","");
```

```
        TextView txtProfileEmail = (TextView)
navigationView.getHeaderView(0).findViewById(R.id.headerusergmail);
        txtProfileEmail.setText(s);

        //Animation on Home cards
        // load the animation
        animBounce = AnimationUtils.loadAnimation(getApplicationContext(),
                R.anim.bounce);
        // set animation listener
        animBounce.setAnimationListener(this);

        //Applying animation on button

        Button b1 = (Button) this.findViewById(R.id.predict);
        b1.setVisibility(View.VISIBLE);
        b1.startAnimation(animBounce);

        Button b2 = (Button) this.findViewById(R.id.collegeinfo);
        b2.setVisibility(View.VISIBLE);
        b2.startAnimation(animBounce);

        Button b3 = (Button) this.findViewById(R.id.cuttoff);
        b3.setVisibility(View.VISIBLE);
        b3.startAnimation(animBounce);

        Button b4 = (Button) this.findViewById(R.id.admissionsteps);
        b4.setVisibility(View.VISIBLE);
        b4.startAnimation(animBounce);

        Button b5 = (Button) this.findViewById(R.id.keydates);
        b5.setVisibility(View.VISIBLE);
        b5.startAnimation(animBounce);

        Button b6 = (Button) this.findViewById(R.id.branches);
        b6.setVisibility(View.VISIBLE);
        b6.startAnimation(animBounce);

        Button b7 = (Button) this.findViewById(R.id.collegeloc);
        b7.setVisibility(View.VISIBLE);
        b7.startAnimation(animBounce);

        Button b8 = (Button) this.findViewById(R.id.scholarship);
        b8.setVisibility(View.VISIBLE);
        b8.startAnimation(animBounce);

        Button b9 = (Button) this.findViewById(R.id.chatbot);
        b9.setVisibility(View.VISIBLE);
        b9.startAnimation(animBounce);

        Button b10 = (Button) this.findViewById(R.id.websites);
        b10.setVisibility(View.VISIBLE);
        b10.startAnimation(animBounce);


        ConnectivityManager cm = (ConnectivityManager)
                getApplicationContext().getSystemService(Context.CONNECTIVITY_SERVICE);

        NetworkInfo activeNetwork = cm.getActiveNetworkInfo();
        if (null == activeNetwork) {
            answer = "Failed to Load News! Please Check Internet Connection";
            Toast.makeText(getApplicationContext(), answer, Toast.LENGTH_SHORT).show();
            mValueView.setText("Unable to Load News, No Internet connection!!");
            mValueView.setSelected(true);

        }
        else {
          answer = "Please wait loading News...";
          Toast.makeText(getApplicationContext(), answer, Toast.LENGTH_LONG).show();
```

```
    }


}


//Cutoff Intent
public void oncutoff(View v)
{

    Intent intent =new Intent(this,CutoffActivity.class);
    startActivity(intent);
    finish();
    overridePendingTransition(R.anim.pull_in_right, R.anim.push_out_left);
}
//Predictor Intent
public void gotopredict(View v)
{

    Intent intent =new Intent(this,PredictmarksActivity.class);
    startActivity(intent);
    finish();
    overridePendingTransition(R.anim.pull_in_right, R.anim.push_out_left);
}

//College Info Intent
public void oncollegeinfo(View v)
{
    Intent intent =new Intent(this,CollegeInfoActivity.class);
    startActivity(intent);
    finish();
    overridePendingTransition(R.anim.pull_in_right, R.anim.push_out_left);
}

//Branches Intent
public void onBranches(View v)
{
    Intent intent =new Intent(this,BranchesActivity.class);
    startActivity(intent);
    finish();
    overridePendingTransition(R.anim.pull_in_right, R.anim.push_out_left);
}

//AdmissionSteps Intent
public void onAdmissionSteps(View v)
{
    Intent intent =new Intent(this,AdmissionStepsActivity.class);
    startActivity(intent);
    finish();
    overridePendingTransition(R.anim.pull_in_right, R.anim.push_out_left);
}

//KeyDates Intent
public void onKeyDates(View v)
{
    Intent intent =new Intent(this,KeyDatesActivity.class);
    startActivity(intent);
    finish();
    overridePendingTransition(R.anim.pull_in_right, R.anim.push_out_left);
}

//WebSites Intent
public void onWebsite(View v)
{
    Intent intent =new Intent(this,WebsitesActivity.class);
    startActivity(intent);
```

```
    finish();
    overridePendingTransition(R.anim.pull_in_right, R.anim.push_out_left);
}


//Scholarship Intent
public void onScholarship(View v)
{
    Intent intent =new Intent(this,ScholarshipActivity.class);
    startActivity(intent);
    finish();
    overridePendingTransition(R.anim.pull_in_right, R.anim.push_out_left);
}


//Live Chat Intent
public void onLC(View v)
{
    Intent intent =new Intent(this,ChatbotAIListnerActivity.class);
    startActivity(intent);
    finish();
    overridePendingTransition(R.anim.pull_in_right, R.anim.push_out_left);
}


//College Location Intent
public void onCL(View v)
{
    Intent intent =new Intent(this,MapsActivity.class);
    startActivity(intent);
    finish();
    overridePendingTransition(R.anim.pull_in_right, R.anim.push_out_left);
}


@Override
public void onBackPressed() {
    final AlertDialog.Builder builder = new AlertDialog.Builder(Home.this);
    builder.setMessage("Are you sure you want to Exit ?");
    builder.setCancelable(true);
    builder.setNegativeButton("No", new DialogInterface.OnClickListener() {
        @Override
        public void onClick(DialogInterface dialogInterface, int i) {
            dialogInterface.cancel();
        }
    });
    builder.setPositiveButton("Yes", new DialogInterface.OnClickListener() {
        @Override
        public void onClick(DialogInterface dialogInterface, int i) {
            finish();
        }
    });
    AlertDialog alertDialogLayout = builder.create();
    alertDialogLayout.show();
}


@Override
public boolean onOptionsItemSelected(MenuItem item) {
    // Handle action bar item clicks here. The action bar will
    // automatically handle clicks on the Home/Up button, so long
    // as you specify a parent activity in AndroidManifest.xml.
    int id = item.getItemId();

    //noinspection SimplifiableIfStatement
    return super.onOptionsItemSelected(item);
}
```

```
@SuppressWarnings("StatementWithEmptyBody")
@Override
public boolean onNavigationItemSelected(MenuItem item) {
    // Handle navigation view item clicks here.
    int id = item.getItemId();
    if (id == R.id.nav_myaccount) {
        Intent i =new Intent(this, MyAccountActivity.class);
        startActivity(i);
        finish();
        overridePendingTransition(R.anim.pull_in_right, R.anim.push_out_left);
    }else if (id == R.id.nav_notification) {

    } else if (id == R.id.nav_upgradeapp) {

    } else if (id == R.id.nav_faq) {
        Intent i =new Intent(this, FaqActivity.class);
        startActivity(i);
        finish();
        overridePendingTransition(R.anim.pull_in_right, R.anim.push_out_left);

    } else if (id == R.id.nav_share) {
        Intent myintent = new Intent(Intent.ACTION_SEND);
        myintent.setType("text/plain");
        String shareBody ="Your Body Here";
        String shareSub ="Your Subject Here";
        myintent.putExtra(Intent.EXTRA_SUBJECT,shareSub);
        myintent.putExtra(Intent.EXTRA_TEXT,shareBody);
        startActivity(Intent.createChooser(myintent,"Share Using"));

    } else if (id == R.id.nav_feedback) {
        Intent i =new Intent(this, FeedbackActivity.class);
        startActivity(i);
        overridePendingTransition(R.anim.pull_in_right, R.anim.push_out_left);

    } else if (id == R.id.nav_aboutus) {
        Intent i =new Intent(this, AboutusActivity.class);
        startActivity(i);
        overridePendingTransition(R.anim.pull_in_right, R.anim.push_out_left);

    }
    else if (id == R.id.nav_logout) {
        FirebaseAuth.getInstance().signOut();
        finish();
        startActivity(new Intent(this,LoginActivity.class));



    }


    DrawerLayout drawer = (DrawerLayout) findViewById(R.id.drawer_layout);
    drawer.closeDrawer(GravityCompat.START);
    return true;

}

//Animation listner methods
@Override
public void onAnimationStart(Animation animation) {

}

@Override
public void onAnimationEnd(Animation animation) {

}

@Override
```

```
    public void onAnimationRepeat(Animation animation) {

    }

    @Override
    protected void onStart() {
        super.onStart();
        databaseReferenceChild.addValueEventListener(Home.this);
    }

    //showing news from firebase
    @Override
    public void onDataChange(com.google.firebase.database.DataSnapshot dataSnapshot) {
        if (dataSnapshot.getValue(String.class)!=null)
        {
            String key = dataSnapshot.getKey();
            if (key.equals("heading"))
            {
                String heaing = dataSnapshot.getValue(String.class);
                mValueView.setText(heaing);
                mValueView.setSelected(true);
            }
        }

    }
    @Override
    public void onCancelled(DatabaseError databaseError) {

    }
}
```

SOURCE CODE (Predictor):

Xml Code:

```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:background="@drawable/chatboardback"
    android:layout_height="match_parent">

    <TextView
        android:id="@+id/textView4"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_alignParentLeft="true"
        android:layout_alignParentStart="true"
        android:layout_alignParentTop="true"
        android:layout_marginLeft="30dp"
        android:layout_marginStart="30dp"
        android:layout_marginTop="20dp"
        android:textSize="20dp"
        android:inputType="none"
        android:text="Enter Percentage:"
        android:textColor="#ffffff"
        android:textStyle="bold" />

    <TextView
        android:id="@+id/textView5"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginLeft="25dp"
        android:layout_marginTop="60dp"
        android:text="(Please Select one option Below !)" />
```

```
<RadioGroup
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:id="@+id/radioGroup">

    <RadioButton
        android:id="@+id/ssc"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginLeft="20dp"
        android:layout_marginTop="90dp"
        android:checked="true"
        android:text="SSC"
        android:textColor="#fff"
        android:textSize="20sp"
        android:textStyle="bold" />

    <RadioButton
        android:id="@+id/hsc"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginLeft="20dp"
        android:layout_marginTop="10dp"
        android:checked="false"
        android:text="HSC"
        android:textColor="#fff"
        android:textSize="20sp"
        android:textStyle="bold" />

</RadioGroup>


<EditText
    android:id="@+id/marks"
    android:layout_width="50dp"
    android:layout_height="wrap_content"
    android:layout_alignParentTop="true"
    android:paddingTop="25dp"
    android:layout_marginLeft="13dp"
    android:layout_marginStart="13dp"
    android:layout_toEndOf="@+id/textView4"
    android:layout_toRightOf="@+id/textView4"
    android:drawableRight="@drawable/ic_percentage"
    android:inputType="numberDecimal"
    android:textSize="12dp" />

<Button
    android:id="@+id/predictmarks"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginTop="170dp"
    android:background="@drawable/button_style"
    android:layout_marginLeft="150dp"
    android:onClick="marks"
    android:padding="10dp"
    android:text="Predict Branch"
    android:textColor="#ffffff" />


<TextView
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:textStyle="bold"
    android:textColor="@color/white"
    android:textSize="15dp"
    android:layout_marginLeft="30dp"
    android:layout_marginTop="230dp"
    android:text="Branch Prediction:" />
```

```
    <com.github.mikephil.charting.charts.HorizontalBarChart
        android:id="@+id/barchart"
        android:layout_marginTop="250dp"
        android:layout_marginLeft="15dp"
        android:layout_width="match_parent"
        android:layout_height="match_parent"/>


</RelativeLayout>
```

Java Code:

```
package com.org.arkp.admissionguidance;


import android.content.Intent;
import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;
import android.view.MenuItem;
import android.view.View;
import android.view.Window;
import android.view.WindowManager;
import android.widget.Button;
import android.widget.EditText;
import android.widget.RadioButton;
import android.widget.Toast;

import com.github.mikephil.charting.charts.BarChart;
import com.github.mikephil.charting.charts.HorizontalBarChart;
import com.github.mikephil.charting.data.BarData;
import com.github.mikephil.charting.data.BarDataSet;
import com.github.mikephil.charting.data.BarEntry;
import com.github.mikephil.charting.utils.ColorTemplate;

import java.util.ArrayList;

public class PredictmarksActivity extends AppCompatActivity implements  View.OnClickListener {

    private EditText editTextEnterMarks;
    private RadioButton radioButtonSSC;
    private RadioButton radioButtonHSC;
    private Button buttonPredict;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_predictmarks);

        Window w = this.getWindow();
        //set task bar translucent & also color
        w.clearFlags(WindowManager.LayoutParams.FLAG_TRANSLUCENT_STATUS);
        w.addFlags(WindowManager.LayoutParams.FLAG_DRAWS_SYSTEM_BAR_BACKGROUNDS);

        getSupportActionBar().setDisplayHomeAsUpEnabled(true);
        getSupportActionBar().setDisplayShowHomeEnabled(true);

        setTitle("Predictor");

        editTextEnterMarks = (EditText) findViewById(R.id.marks);
        radioButtonSSC = (RadioButton) findViewById(R.id.ssc);
        radioButtonHSC = (RadioButton) findViewById(R.id.hsc);
        buttonPredict = (Button) findViewById(R.id.predictmarks);

        buttonPredict.setOnClickListener(this);
```

```
    HorizontalBarChart barChart = (HorizontalBarChart) findViewById(R.id.barchart);

    ArrayList<BarEntry> entries = new ArrayList<>();
    entries.add(new BarEntry(0f, 0));
    entries.add(new BarEntry(0f, 1));
    entries.add(new BarEntry(0f, 2));
    entries.add(new BarEntry(0f, 3));
    entries.add(new BarEntry(0f, 4));

    BarDataSet bardataset = new BarDataSet(entries, "Cells");

    ArrayList<String> labels = new ArrayList<String>();
    labels.add("MECHANICAL");
    labels.add("CIVIL");
    labels.add("COMPUTER");
    labels.add("EX");
    labels.add("EJ");

    BarData data = new BarData(labels, bardataset);
    barChart.setData(data); // set the data and list of lables into chart
    barChart.setDescription(null);  // set the description
    bardataset.setColors(ColorTemplate.COLORFUL_COLORS);

    barChart.animateY(1500);



}

@Override
public void onClick(View view) {
    if (view == buttonPredict) {
        predictBranch();
    }
}


private void predictBranch() {
    String marks = editTextEnterMarks.getText().toString().trim();
    if (Integer.parseInt(marks) >= 90 && Integer.parseInt(marks) <= 100) {
        HorizontalBarChart barChart = (HorizontalBarChart) findViewById(R.id.barchart);
        ArrayList<BarEntry> entries = new ArrayList<>();
        entries.add(new BarEntry(8f, 0));   //me
        entries.add(new BarEntry(8.5f, 1));   //ce
        entries.add(new BarEntry(9f, 2));   //co
        entries.add(new BarEntry(9.5f, 3));    //ex
        entries.add(new BarEntry(10f, 4));   //ej

        BarDataSet bardataset = new BarDataSet(entries, "Cells");

        ArrayList<String> labels = new ArrayList<String>();
        labels.add("MECHANICAL");
        labels.add("CIVIL");
        labels.add("COMPUTER");
        labels.add("EX");
        labels.add("EJ");

        BarData data = new BarData(labels, bardataset);
        barChart.setData(data); // set the data and list of lables into chart
        barChart.setDescription(null);  // set the description
        bardataset.setColors(ColorTemplate.COLORFUL_COLORS);

        barChart.animateY(1500);
    } else if (Integer.parseInt(marks) >= 80 && Integer.parseInt(marks) <= 90) {
        HorizontalBarChart barChart = (HorizontalBarChart) findViewById(R.id.barchart);

        ArrayList<BarEntry> entries = new ArrayList<>();
        entries.add(new BarEntry(7.5f, 0));
```

```
        entries.add(new BarEntry(8f, 1));
        entries.add(new BarEntry(9f, 2));
        entries.add(new BarEntry(9.5f, 3));
        entries.add(new BarEntry(10f, 4));

        BarDataSet bardataset = new BarDataSet(entries, "Cells");

        ArrayList<String> labels = new ArrayList<String>();
        labels.add("MECHANICAL");
        labels.add("CIVIL");
        labels.add("COMPUTER");
        labels.add("EX");
        labels.add("EJ");

        BarData data = new BarData(labels, bardataset);
        barChart.setData(data); // set the data and list of lables into chart
        barChart.setDescription(null);  // set the description
        bardataset.setColors(ColorTemplate.COLORFUL_COLORS);

        barChart.animateY(1500);
    } else if (Integer.parseInt(marks) >= 70 && Integer.parseInt(marks) <= 80) {
        HorizontalBarChart barChart = (HorizontalBarChart) findViewById(R.id.barchart);

        ArrayList<BarEntry> entries = new ArrayList<>();
        entries.add(new BarEntry(7f, 0));
        entries.add(new BarEntry(8f, 1));
        entries.add(new BarEntry(9f, 2));
        entries.add(new BarEntry(9.5f, 3));
        entries.add(new BarEntry(10f, 4));

        BarDataSet bardataset = new BarDataSet(entries, "Cells");

        ArrayList<String> labels = new ArrayList<String>();
        labels.add("MECHANICAL");
        labels.add("CIVIL");
        labels.add("COMPUTER");
        labels.add("EX");
        labels.add("EJ");

        BarData data = new BarData(labels, bardataset);
        barChart.setData(data); // set the data and list of lables into chart
        barChart.setDescription(null);  // set the description
        bardataset.setColors(ColorTemplate.COLORFUL_COLORS);

        barChart.animateY(1500);
    } else if (Integer.parseInt(marks) >= 60 && Integer.parseInt(marks) <= 70) {
        HorizontalBarChart barChart = (HorizontalBarChart) findViewById(R.id.barchart);

        ArrayList<BarEntry> entries = new ArrayList<>();
        entries.add(new BarEntry(5f, 0));
        entries.add(new BarEntry(6f, 1));
        entries.add(new BarEntry(8.5f, 2));
        entries.add(new BarEntry(9f, 3));
        entries.add(new BarEntry(10f, 4));

        BarDataSet bardataset = new BarDataSet(entries, "Cells");

        ArrayList<String> labels = new ArrayList<String>();
        labels.add("MECHANICAL");
        labels.add("CIVIL");
        labels.add("COMPUTER");
        labels.add("EX");
        labels.add("EJ");

        BarData data = new BarData(labels, bardataset);
        barChart.setData(data); // set the data and list of lables into chart
        barChart.setDescription(null);  // set the description
        bardataset.setColors(ColorTemplate.COLORFUL_COLORS);
```

```
        barChart.animateY(1500);
    } else if (Integer.parseInt(marks) >= 50 && Integer.parseInt(marks) <= 60) {
        HorizontalBarChart barChart = (HorizontalBarChart) findViewById(R.id.barchart);

        ArrayList<BarEntry> entries = new ArrayList<>();
        entries.add(new BarEntry(2f, 0));
        entries.add(new BarEntry(3f, 1));
        entries.add(new BarEntry(5f, 2));
        entries.add(new BarEntry(6f, 3));
        entries.add(new BarEntry(7.5f, 4));

        BarDataSet bardataset = new BarDataSet(entries, "Cells");

        ArrayList<String> labels = new ArrayList<String>();
        labels.add("MECHANICAL");
        labels.add("CIVIL");
        labels.add("COMPUTER");
        labels.add("EX");
        labels.add("EJ");

        BarData data = new BarData(labels, bardataset);
        barChart.setData(data); // set the data and list of lables into chart
        barChart.setDescription(null);  // set the description
        bardataset.setColors(ColorTemplate.COLORFUL_COLORS);

        barChart.animateY(1500);
    } else if (Integer.parseInt(marks) >= 40 && Integer.parseInt(marks) <= 50) {
        HorizontalBarChart barChart = (HorizontalBarChart) findViewById(R.id.barchart);

        ArrayList<BarEntry> entries = new ArrayList<>();
        entries.add(new BarEntry(2f, 0));
        entries.add(new BarEntry(3f, 1));
        entries.add(new BarEntry(4f, 2));
        entries.add(new BarEntry(6f, 3));
        entries.add(new BarEntry(7f, 4));

        BarDataSet bardataset = new BarDataSet(entries, "Cells");

        ArrayList<String> labels = new ArrayList<String>();
        labels.add("MECHANICAL");
        labels.add("CIVIL");
        labels.add("COMPUTER");
        labels.add("EX");
        labels.add("EJ");

        BarData data = new BarData(labels, bardataset);
        barChart.setData(data); // set the data and list of lables into chart
        barChart.setDescription(null);  // set the description
        bardataset.setColors(ColorTemplate.COLORFUL_COLORS);

        barChart.animateY(1500);
    } else if (Integer.parseInt(marks) >= 35 && Integer.parseInt(marks) <= 40) {
        HorizontalBarChart barChart = (HorizontalBarChart) findViewById(R.id.barchart);

        ArrayList<BarEntry> entries = new ArrayList<>();
        entries.add(new BarEntry(0f, 0));
        entries.add(new BarEntry(1f, 1));
        entries.add(new BarEntry(2f, 2));
        entries.add(new BarEntry(3f, 3));
        entries.add(new BarEntry(4f, 4));

        BarDataSet bardataset = new BarDataSet(entries, "Cells");

        ArrayList<String> labels = new ArrayList<String>();
        labels.add("MECHANICAL");
        labels.add("CIVIL");
        labels.add("COMPUTER");
```

```
            labels.add("EX");
            labels.add("EJ");

            BarData data = new BarData(labels, bardataset);
            barChart.setData(data); // set the data and list of lables into chart

            barChart.setDescription(null);  // set the description

            bardataset.setColors(ColorTemplate.COLORFUL_COLORS);

            barChart.animateY(1500);
        } else {
            Toast.makeText(this, "Please Enter Proper Marks", Toast.LENGTH_LONG).show();
        }


    }
    @Override
    public boolean onOptionsItemSelected(MenuItem item) {
        switch (item.getItemId()) {
            case android.R.id.home:
                Intent intent = new Intent(PredictmarksActivity.this, Home.class);
                startActivity(intent);
                finish();
                overridePendingTransition(R.anim.pull_in_left, R.anim.pull_in_left);
                return true;
            default:
                return super.onOptionsItemSelected(item);
        }
    }


    @Override
    public void onBackPressed() {
        Intent intent = new Intent(PredictmarksActivity.this, Home.class);
        startActivity(intent);
        finish();
        overridePendingTransition(R.anim.pull_in_left, R.anim.pull_in_left);
    }
}
```

SOURCE CODE (College Info):

Xml Code:

```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    android:id="@+id/activity_arkp"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context="com.org.arkp.admissionguidance.CollegeInfoActivity">

    <android.support.v4.widget.SwipeRefreshLayout
        android:id="@+id/swipe"
        android:layout_width="match_parent"
        android:layout_height="match_parent">

        <WebView
            android:layout_width="match_parent"
            android:layout_height="match_parent"
            android:layout_alignParentTop="true"
            android:layout_alignParentLeft="true"
```

```
            android:layout_alignParentStart="true"
            android:id="@+id/WebARKP"
            />

    </android.support.v4.widget.SwipeRefreshLayout>


</RelativeLayout>
```

Java Code:

```
package com.org.arkp.admissionguidance;

import android.content.Context;
import android.content.Intent;
import android.graphics.Bitmap;
import android.net.ConnectivityManager;
import android.net.NetworkInfo;
import android.support.v4.widget.SwipeRefreshLayout;
import android.support.v7.app.ActionBar;
import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;
import android.view.KeyEvent;
import android.view.MenuItem;
import android.view.View;
import android.view.Window;
import android.view.WindowManager;
import android.webkit.WebSettings;
import android.webkit.WebView;
import android.webkit.WebViewClient;
import android.widget.ProgressBar;
import android.widget.Toast;

import com.github.ksoichiro.android.observablescrollview.ObservableScrollViewCallbacks;
import com.github.ksoichiro.android.observablescrollview.ScrollState;

public class CollegeInfoActivity extends AppCompatActivity {


    //declaring
    SwipeRefreshLayout swipe;
    private WebView webview;
    String answer;


    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_college_info);
        webview = (WebView) findViewById(R.id.WebARKP);

        setTitle("College Info");
        Window w = this.getWindow();

        //set task bar translucent & also color

        w.clearFlags(WindowManager.LayoutParams.FLAG_TRANSLUCENT_STATUS);
        w.addFlags(WindowManager.LayoutParams.FLAG_DRAWS_SYSTEM_BAR_BACKGROUNDS);
        webview.setWebViewClient(new myWebclient());


        getSupportActionBar().setDisplayHomeAsUpEnabled(true);
        getSupportActionBar().setDisplayShowHomeEnabled(true);


        swipe = (SwipeRefreshLayout) findViewById(R.id.swipe);
        swipe.setOnRefreshListener(new SwipeRefreshLayout.OnRefreshListener() {
```

```
            @Override
            public void onRefresh() {

                LoadWeb();
            }
        });

        LoadWeb();

        ConnectivityManager cm = (ConnectivityManager)
                getApplicationContext().getSystemService(Context.CONNECTIVITY_SERVICE);
        NetworkInfo activeNetwork = cm.getActiveNetworkInfo();
        if (null == activeNetwork) {
            answer = "Please check internet connection!!";
            Toast.makeText(getApplicationContext(), answer, Toast.LENGTH_LONG).show();
        }

    }

    public void LoadWeb(){

        webview = (WebView) findViewById(R.id.WebARKP);
        webview.getSettings().setJavaScriptEnabled(true);
        webview.getSettings().setAppCacheEnabled(true);
        webview.loadUrl("http://aiarkp.org/");
        swipe.setRefreshing(true);
        webview.setWebViewClient(new WebViewClient(){

            public void onReceivedError(WebView view, int errorCode, String description, String
failingUrl) {

                webview.loadUrl("file:///android_asset/Errrorpage.html");
            }

            public  void  onPageFinished(WebView view, String url){

                //Hide the SwipeReefreshLayout

                swipe.setRefreshing(false);
            }

        });
    }

    //Webview of College Info


    public class myWebclient extends WebViewClient{
        @Override
        public void onPageFinished(WebView view, String url) {
            super.onPageFinished(view, url);

        }

        @Override
        public void onPageStarted(WebView view, String url, Bitmap favicon) {
            super.onPageStarted(view, url, favicon);

        }

        @Override
        public boolean shouldOverrideUrlLoading(WebView view, String url) {
            view.loadUrl(url);
            return super.shouldOverrideUrlLoading(view, url);
        }
    }

    // back arrow
```

```
    @Override
    public boolean onOptionsItemSelected(MenuItem item) {
        switch (item.getItemId()) {
            case android.R.id.home:
                Intent intent = new Intent(CollegeInfoActivity.this, Home.class);
                startActivity(intent);
                finish();
                return true;
            default:
                return super.onOptionsItemSelected(item);
        }
    }

    //kill Current College info activity on back button pressed
    @Override
    public void onBackPressed() {
        Intent intent = new Intent(CollegeInfoActivity.this, Home.class);
        startActivity(intent);
        finish();
    }

    @Override
    public boolean onKeyDown(int keyCode, KeyEvent event) {
        if((keyCode==KeyEvent.KEYCODE_BACK) && webview.canGoBack()){
            webview.goBack();
            return true;
        }

        return super.onKeyDown(keyCode, event);
    }
}
```

SOURCE CODE (Key Dates):

Xml Code:

```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context="com.org.arkp.admissionguidance.KeyDatesActivity">

    <WebView
        android:id="@+id/WebKeyDates"
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:layout_centerHorizontal="true"
        android:layout_centerVertical="true" />
</RelativeLayout>
```

Java Code:

```
package com.org.arkp.admissionguidance;

import android.content.Intent;
import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;
import android.view.MenuItem;
import android.view.Window;
import android.view.WindowManager;
import android.webkit.WebView;
import android.widget.Toast;
```

```
public class KeyDatesActivity extends AppCompatActivity {

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_key_dates);
        setTitle("Key Dates");
        Window w = this.getWindow();

        //set task bar translucent & also color

        w.clearFlags(WindowManager.LayoutParams.FLAG_TRANSLUCENT_STATUS);
        w.addFlags(WindowManager.LayoutParams.FLAG_DRAWS_SYSTEM_BAR_BACKGROUNDS);
        //w.setStatusBarColor(Color.parseColor("#FFFA635E"));

        getSupportActionBar().setDisplayHomeAsUpEnabled(true);
        getSupportActionBar().setDisplayShowHomeEnabled(true);

        WebView wv;

        wv = (WebView) findViewById(R.id.WebKeyDates);
        wv.getSettings().setLoadWithOverviewMode(true);
        wv.getSettings().setUseWideViewPort(true);
        wv.loadUrl("file:///android_asset/keydates.html");

        //make webview zoomable
        wv.getSettings().setBuiltInZoomControls(true);
        wv.getSettings().setDisplayZoomControls(false);

        String answer;
        answer = "Please wait loading Key Dates...";
        Toast.makeText(getApplicationContext(), answer, Toast.LENGTH_LONG).show();
    }

    // back arrow
    @Override
    public boolean onOptionsItemSelected(MenuItem item) {
        switch (item.getItemId()) {
            case android.R.id.home:
                Intent intent = new Intent(KeyDatesActivity.this, Home.class);
                startActivity(intent);
                finish();
                return true;
            default:
                return super.onOptionsItemSelected(item);
        }
    }

    //kill Current College info activity on back button pressed
    @Override
    public void onBackPressed() {
        Intent intent = new Intent(KeyDatesActivity.this, Home.class);
        startActivity(intent);
        finish();
    }
}
```

SOURCE CODE (Websites):

Xml Code:

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout
    android:id="@+id/HomeFragment"
    android:orientation="vertical"
```

```
android:layout_width="fill_parent"
android:layout_height="fill_parent"
xmlns:android="http://schemas.android.com/apk/res/android"
xmlns:card="http://schemas.android.com/apk/res-auto">


<ScrollView
    android:layout_width="fill_parent"
    android:layout_height="0.0dip"
    android:layout_weight="1.0">


    <LinearLayout
        android:orientation="vertical"
        android:padding="0.0dip"
        android:layout_width="fill_parent"
        android:layout_height="0.0dip"
        android:layout_margin="5.0dip"
        android:layout_weight="1.0">

        <!-- ARKP WEBSITE-->
        <LinearLayout
            android:orientation="horizontal"
            android:layout_width="match_parent"
            android:layout_height="150.0dip">

            <android.support.v7.widget.CardView
                android:layout_width="350.0dip"
                android:layout_height="130.0dip"
                android:layout_margin="3.0dip"
                android:layout_weight="1"
                card:cardBackgroundColor="@color/colorPrimaryDark"
                card:cardCornerRadius="5dp"
                card:cardElevation="2.0dip">

                <Button
                    android:padding="5dp"
                    android:layout_width="fill_parent"
                    android:layout_height="fill_parent"
                    android:text="OFFICIAL ARKP WEBSITE"
                    android:onClick="onOfficialARKPWebsite"
                    android:id="@+id/OARKPW"
                    android:drawableTop="@drawable/ic_arkp"
                    android:textSize="15dp"
                    android:textColor="#000000"
                    android:backgroundTint="#ffffff"
                    style="@style/homeButton" />

            </android.support.v7.widget.CardView>

        </LinearLayout>

        <!-- MSBTE WEBSITE-->
        <LinearLayout
            android:layout_width="match_parent"
            android:layout_height="150.0dip"
            android:orientation="horizontal">

            <android.support.v7.widget.CardView
                android:layout_width="350.0dip"
                android:layout_height="130.0dip"
                android:layout_margin="3.0dip"
                android:layout_weight="1"
                card:cardBackgroundColor="@color/colorPrimaryDark"
                card:cardCornerRadius="5dp"
                card:cardElevation="2.0dip">

                <Button
```

```
                    android:padding="5dp"
                    android:layout_width="fill_parent"
                    android:layout_height="fill_parent"
                    android:text="OFFICAL MSBTE WEBSITE"
                    android:id="@+id/OMSBTEW"
                    android:drawableTop="@drawable/ic_msbte"
                    android:onClick="onOfficialMSBTEWebsite"
                    android:textSize="15dp"
                    android:textColor="#000000"
                    android:backgroundTint="#ffffff"
                    style="@style/homeButton" />

            </android.support.v7.widget.CardView>
        </LinearLayout>

        <!-- DTE WEBSITE-->
        <LinearLayout
            android:layout_width="match_parent"
            android:layout_height="150.0dip"
            android:orientation="horizontal">

            <android.support.v7.widget.CardView
                android:layout_width="350.0dip"
                android:layout_height="130.0dip"
                android:layout_margin="3.0dip"
                android:layout_weight="1"
                card:cardBackgroundColor="@color/colorPrimaryDark"
                card:cardCornerRadius="5dp"
                card:cardElevation="2.0dip">

                <Button
                    android:padding="5dp"
                    android:layout_width="fill_parent"
                    android:layout_height="fill_parent"
                    android:drawableTop="@drawable/ic_dtemaha"
                    android:text="OFFICAL DTE WEBSITE"
                    android:id="@+id/ODTEW"
                    android:onClick="onOfficialDTEWebsite"
                    android:textSize="15dp"
                    android:textColor="#000000"
                    android:backgroundTint="#ffffff"
                    style="@style/homeButton" />

            </android.support.v7.widget.CardView>
        </LinearLayout>

    </LinearLayout>
</ScrollView>


</LinearLayout>
```

Java Code:

```
package com.org.arkp.admissionguidance;
import android.content.Intent;
import android.net.Uri;
import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;
import android.view.MenuItem;
import android.view.View;
import android.view.Window;
import android.view.WindowManager;

public class WebsitesActivity extends AppCompatActivity {

    @Override
```

```
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_websites);
        Window w = this.getWindow();
        //set task bar translucent & also color
        w.clearFlags(WindowManager.LayoutParams.FLAG_TRANSLUCENT_STATUS);
        w.addFlags(WindowManager.LayoutParams.FLAG_DRAWS_SYSTEM_BAR_BACKGROUNDS);
        setTitle("Important Websites");
        getSupportActionBar().setDisplayHomeAsUpEnabled(true);
        getSupportActionBar().setDisplayShowHomeEnabled(true);
    }

    @Override
    public boolean onOptionsItemSelected(MenuItem item) {
        switch (item.getItemId()) {
            case android.R.id.home:
                Intent intent = new Intent(WebsitesActivity.this, Home.class);
                startActivity(intent);
                finish();
                return true;
            default:
                return super.onOptionsItemSelected(item);
        }
    }
    @Override
    public void onBackPressed() {
        Intent intent = new Intent(WebsitesActivity.this, Home.class);
        startActivity(intent);
        finish();
    }
    public void onOfficialARKPWebsite(View view)
    {
        Intent intent=new Intent(Intent.ACTION_VIEW, Uri.parse("http://aiarkp.org/"));
        startActivity(intent);
    }
    public void onOfficialMSBTEWebsite(View view)
    {
        Intent intent=new Intent(Intent.ACTION_VIEW, Uri.parse("http://msbte.org.in/"));
        startActivity(intent);
    }
    public void onOfficialDTEWebsite(View view)
    {
        Intent intent=new Intent(Intent.ACTION_VIEW,
Uri.parse("https://www.dtemaharashtra.gov.in/"));
        startActivity(intent);
    }
}
```

SOURCE CODE (Admission Steps):

Xml Code:

(Main)

```
<?xml version="1.0" encoding="utf-8"?>
<android.support.design.widget.CoordinatorLayout
xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:id="@+id/main_content"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:fitsSystemWindows="true"
    tools:context="com.org.arkp.admissionguidance.AdmissionStepsActivity">
```

```
    <android.support.design.widget.AppBarLayout
        android:id="@+id/appbar"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:paddingTop="@dimen/appbar_padding_top"
        android:theme="@style/AppTheme.AppBarOverlay">

        <android.support.v7.widget.Toolbar
            android:id="@+id/toolbar"
            android:layout_width="match_parent"
            android:layout_height="?attr/actionBarSize"
            android:layout_weight="1"
            android:background="?attr/colorPrimary"
            app:layout_scrollFlags="scroll|enterAlways"
            app:popupTheme="@style/AppTheme.PopupOverlay"
            app:title="@string/app_name">

        </android.support.v7.widget.Toolbar>

        <android.support.design.widget.TabLayout
            android:id="@+id/tabs"
            android:layout_width="match_parent"
            android:layout_height="wrap_content">

            <android.support.design.widget.TabItem
                android:id="@+id/tabItem"
                android:layout_width="wrap_content"
                android:layout_height="wrap_content"
                android:text="@string/tab_text_1" />

            <android.support.design.widget.TabItem
                android:id="@+id/tabItem2"
                android:layout_width="wrap_content"
                android:layout_height="wrap_content"
                android:text="@string/tab_text_2" />


        </android.support.design.widget.TabLayout>
    </android.support.design.widget.AppBarLayout>

    <android.support.v4.view.ViewPager
        android:id="@+id/container"
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        app:layout_behavior="@string/appbar_scrolling_view_behavior" />


</android.support.design.widget.CoordinatorLayout>
```

(Tab1)

```
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context="com.org.arkp.admissionguidance.AdmissionStepsActivity">

    <TextView
        android:id="@+id/section_label"
        android:layout_marginLeft="5dp"
        android:layout_marginTop="5dp"
        android:text="Admission Steps Overview:"
        android:textStyle="bold"
        android:textColor="#000000"
        android:textSize="26dp"
```

```
        android:layout_width="wrap_content"
        android:layout_height="wrap_content" />

    <WebView
        android:id="@+id/webadmstep"
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:layout_marginTop="65dp"
        android:layout_alignParentBottom="true"
        android:layout_centerHorizontal="true" />

</RelativeLayout>
```

(Tab2)

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout
    xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:card="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:orientation="vertical"
    android:layout_width="fill_parent"
    android:layout_height="match_parent"
    tools:context="com.org.arkp.admissionguidance.AdmissionStepsActivity">

        <com.github.ksoichiro.android.observablescrollview.ObservableScrollView
            android:id="@+id/scroll"
            android:layout_width="fill_parent"
            android:layout_height="0.0dip"
            android:fillViewport="true"
            android:layout_weight="1.0">


            <LinearLayout
                android:orientation="vertical"
                android:padding="0.0dip"
                android:layout_width="fill_parent"
                android:layout_height="0.0dip"
                android:layout_margin="5.0dip"
                android:layout_weight="1.0">

                <!-- Admission Form Filling & Documment Requirement-->
                <LinearLayout
                    android:orientation="horizontal"
                    android:layout_width="match_parent"
                    android:layout_height="fill_parent">

                    <android.support.v7.widget.CardView
                        android:layout_width="350.0dip"
                        android:layout_height="fill_parent"
                        android:layout_margin="3.0dip"
                        android:layout_weight="1"
                        card:cardBackgroundColor="@color/colorPrimaryDark"
                        card:cardCornerRadius="5dp"
                        card:cardElevation="2.0dip">

                        <Button
                            android:id="@+id/admissionformfilling"
                            android:padding="5dp"
                            android:layout_width="fill_parent"
                            android:layout_height="fill_parent"
                            android:text="Admission Form Filling"
                            android:textColor="#000000"
                            android:backgroundTint="#ffffff"
                            android:drawableTop="@drawable/ic_form_fillling"
                            style="@style/homeButton" />
```

```
    </android.support.v7.widget.CardView>

    <android.support.v7.widget.CardView
        android:layout_width="350.0dip"
        android:layout_height="fill_parent"
        android:layout_margin="3.0dip"
        android:layout_weight="1"
        card:cardBackgroundColor="@color/colorPrimaryDark"
        card:cardCornerRadius="5dp"
        card:cardElevation="2.0dip">

        <Button
            android:padding="5dp"
            android:id="@+id/documentrequirement"
            android:layout_width="fill_parent"
            android:layout_height="fill_parent"
            android:text="Document Requirment"
            android:textColor="#000000"
            android:backgroundTint="#ffffff"
            android:drawableTop="@drawable/ic_document_required"
            style="@style/homeButton" />

    </android.support.v7.widget.CardView>

</LinearLayout>

<!-- Admission Schedule Dates & Admission Guidelines-->
<LinearLayout
    android:orientation="horizontal"
    android:layout_width="match_parent"
    android:layout_height="160.0dip">

    <android.support.v7.widget.CardView
        android:layout_width="350.0dip"
        android:layout_height="fill_parent"
        android:layout_margin="3.0dip"
        android:layout_weight="1"
        card:cardBackgroundColor="@color/colorPrimaryDark"
        card:cardCornerRadius="5dp"
        card:cardElevation="2.0dip">

        <Button
            android:padding="5dp"
            android:layout_width="fill_parent"
            android:layout_height="fill_parent"
            android:text="Admission Schedule Dates"
            android:id="@+id/scdates"
            android:textColor="#000000"
            android:backgroundTint="#ffffff"
            android:drawableTop="@drawable/ic_admission_schedule"
            style="@style/homeButton" />

    </android.support.v7.widget.CardView>

    <android.support.v7.widget.CardView
        android:layout_width="350.0dip"
        android:layout_height="fill_parent"
        android:layout_margin="3.0dip"
        android:layout_weight="1"
        card:cardBackgroundColor="@color/colorPrimaryDark"
        card:cardCornerRadius="5dp"
        card:cardElevation="2.0dip">

        <Button
            android:padding="5dp"
            android:layout_width="fill_parent"
            android:layout_height="fill_parent"
```

```
                android:text="Admission Guidelines"
                android:textColor="#000000"
                android:id="@+id/adguide"
                android:backgroundTint="#ffffff"

                android:drawableTop="@drawable/ic_admission_guidlines"
                style="@style/homeButton"

                />

        </android.support.v7.widget.CardView>

    </LinearLayout>

    <!-- Fees Structure Approved & Fees Sturcture-->
    <LinearLayout
        android:orientation="horizontal"
        android:layout_width="match_parent"
        android:layout_height="160.0dip">

        <android.support.v7.widget.CardView
            android:layout_width="350.0dip"
            android:layout_height="fill_parent"
            android:layout_margin="3.0dip"
            android:layout_weight="1"
            card:cardBackgroundColor="@color/colorPrimaryDark"
            card:cardCornerRadius="5dp"
            card:cardElevation="2.0dip">

            <Button
                android:padding="5dp"
                android:layout_width="fill_parent"
                android:layout_height="fill_parent"
                android:text="Fees Structure Approved"
                android:textColor="#000000"
                android:id="@+id/feeApproved"
                android:backgroundTint="#ffffff"
                android:drawableTop="@drawable/ic_fess_structure_approved"
                style="@style/homeButton" />

        </android.support.v7.widget.CardView>

        <android.support.v7.widget.CardView
            android:layout_width="350.0dip"
            android:layout_height="fill_parent"
            android:layout_margin="3.0dip"
            android:layout_weight="1"
            card:cardBackgroundColor="@color/colorPrimaryDark"
            card:cardCornerRadius="5dp"
            card:cardElevation="2.0dip">

            <Button
                android:padding="5dp"
                android:layout_width="fill_parent"
                android:layout_height="fill_parent"
                android:text="Fees Structure"
                android:id="@+id/feeStruct"
                android:textColor="#000000"
                android:backgroundTint="#ffffff"
                android:drawableTop="@drawable/ic_fess_structure"
                style="@style/homeButton" />

        </android.support.v7.widget.CardView>

    </LinearLayout>

    <LinearLayout
        android:layout_width="match_parent"
```

```
                    android:layout_height="match_parent"
                    android:orientation="vertical"
                    android:layout_marginTop="30dp"
                    android:padding="5dp"
                    android:layout_marginBottom="80dp"
                    android:background="#ffffff">


                    <TextView
                        android:layout_width="match_parent"
                        android:layout_height="match_parent"
                        android:text="NOTE:"
                        android:inputType="none"
                        android:textStyle="bold"
                        android:textColor="#000000" />

                    <TextView
                        android:layout_width="match_parent"
                        android:layout_height="match_parent"
                        android:textStyle="italic"
                        android:inputType="none"
                        android:text="1. May be any of the Document change by the admin in case
of any Documentation incorrection, So be Sure on to visit official webite of
www.dtemaharahtra.gov.in to get instant updated document inforamtion. " />

                    <TextView
                        android:layout_width="match_parent"
                        android:layout_height="match_parent"
                        android:textStyle="italic"
                        android:inputType="none"
                        android:text="2.The Above FAR &amp;amp; Fees Structure change according to
MSBTE Every Year " />

                    <TextView
                        android:layout_width="match_parent"
                        android:layout_height="match_parent"
                        android:textStyle="italic"
                        android:inputType="none"
                        android:text="3.For Any Query, Call on below Phone no's to get instant
solution." />


                    <TextView
                        android:layout_width="match_parent"
                        android:layout_height="match_parent"
                        android:layout_marginTop="5dp"
                        android:inputType="none"
                        android:text="(Toll Free no):"
                        android:textStyle="bold"
                        android:textColor="#000000" />

                    <TextView
                        android:layout_width="match_parent"
                        android:layout_height="match_parent"
                        android:textStyle="italic"
                        android:gravity="center|left"
                        android:drawableLeft="@drawable/ic_callus"
                        android:inputType="none"
                        android:autoLink="phone"
                        android:clickable="true"
                        android:text="1800 22 3278"/>

                    <TextView
                        android:layout_width="match_parent"
                        android:layout_height="match_parent"
                        android:layout_marginTop="5dp"
                        android:inputType="none"
                        android:text="Phone no:"
```

```
                android:textStyle="bold"
                android:textColor="#000000" />

            <TextView
                android:layout_width="match_parent"
                android:layout_height="match_parent"
                android:textStyle="italic"
                android:gravity="center|left"
                android:drawableLeft="@drawable/ic_callus"
                android:inputType="none"
                android:autoLink="phone"
                android:clickable="true"
                android:text="022-2748 1508"/>

            <TextView
                android:layout_width="match_parent"
                android:layout_height="match_parent"
                android:textStyle="italic"
                android:gravity="center|left"
                android:drawableLeft="@drawable/ic_callus"
                android:inputType="none"
                android:autoLink="phone"
                android:clickable="true"
                android:text="022-2745 4670"/>

        </LinearLayout>


    </LinearLayout>
  </com.github.ksoichiro.android.observablescrollview.ObservableScrollView>
</LinearLayout>
```

Java Code:

(Main)

```
package com.org.arkp.admissionguidance;

import android.content.Intent;
import android.media.effect.EffectUpdateListener;
import android.os.Bundle;
import android.support.design.widget.TabLayout;
import android.support.v4.app.Fragment;
import android.support.v4.app.FragmentManager;
import android.support.v4.app.FragmentPagerAdapter;
import android.support.v4.view.ViewPager;
import android.support.v7.app.ActionBar;
import android.support.v7.app.AppCompatActivity;
import android.support.v7.widget.Toolbar;
import android.view.MenuItem;
import android.view.Window;
import android.view.WindowManager;

import com.github.ksoichiro.android.observablescrollview.ObservableScrollViewCallbacks;
import com.github.ksoichiro.android.observablescrollview.ScrollState;

public class AdmissionStepsActivity extends AppCompatActivity  {

    /**
     * The {@link android.support.v4.view.PagerAdapter} that will provide
     * fragments for each of the sections. We use a
     * {@link FragmentPagerAdapter} derivative, which will keep every
     * loaded fragment in memory. If this becomes too memory intensive, it
     * may be best to switch to a
     * {@link android.support.v4.app.FragmentStatePagerAdapter}.
     */
    private SectionsPagerAdapter mSectionsPagerAdapter;
```

```
/**
 * The {@link ViewPager} that will host the section contents.
 */
private ViewPager mViewPager;

@Override
protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_admission_steps);
    setTitle("Admission Steps");

    Window w = this.getWindow();

    //set task bar translucent & also color
    w.clearFlags(WindowManager.LayoutParams.FLAG_TRANSLUCENT_STATUS);
    w.addFlags(WindowManager.LayoutParams.FLAG_DRAWS_SYSTEM_BAR_BACKGROUNDS);
    // w.setStatusBarColor(Color.parseColor("#FFFA635E"));

    Toolbar toolbar = (Toolbar) findViewById(R.id.toolbar);
    setSupportActionBar(toolbar);
    getSupportActionBar().setDisplayHomeAsUpEnabled(true);


    // Create the adapter that will return a fragment for each of the three
    // primary sections of the activity.
    mSectionsPagerAdapter = new SectionsPagerAdapter(getSupportFragmentManager());

    // Set up the ViewPager with the sections adapter.
    mViewPager = (ViewPager) findViewById(R.id.container);
    mViewPager.setAdapter(mSectionsPagerAdapter);

    TabLayout tabLayout = (TabLayout) findViewById(R.id.tabs);
    tabLayout.setupWithViewPager(mViewPager);

}


@Override
public boolean onOptionsItemSelected(MenuItem item) {
    switch (item.getItemId()) {
        case android.R.id.home:
            Intent intent = new Intent(AdmissionStepsActivity.this, Home.class);
            startActivity(intent);
            finish();
            return true;
        default:
            return super.onOptionsItemSelected(item);
    }
}

//kill Current College info activity on bacl button pressed
@Override
public void onBackPressed() {
    Intent intent = new Intent(AdmissionStepsActivity.this, Home.class);
    startActivity(intent);
    finish();
}


/**
 * A {@link FragmentPagerAdapter} that returns a fragment corresponding to
 * one of the sections/tabs/pages.
 */
public class SectionsPagerAdapter extends FragmentPagerAdapter {

    public SectionsPagerAdapter(FragmentManager fm) {
        super(fm);
```

```
        }

        @Override
        public Fragment getItem(int position) {

            switch (position){
                case 0:
                    Tab1_AdmissionSteps tab1_admissionSteps = new Tab1_AdmissionSteps();
                    return tab1_admissionSteps;
                case 1:
                    Tab2_AdmissionSteps tab2_admissionSteps = new Tab2_AdmissionSteps();
                    return tab2_admissionSteps;
                default:
                    return null;

            }

        }

        @Override
        public int getCount() {
            // Show 2 total pages.
            return 2;
        }

        @Override
        public CharSequence getPageTitle(int position) {
            switch (position) {
                case 0:
                    return "Admission Steps";
                case 1:
                    return "Admission Help";
            }
            return null;
        }
    }


}
```

(Tab1)

```
package com.org.arkp.admissionguidance;

import android.os.Bundle;
import android.support.v4.app.Fragment;
import android.support.v7.app.ActionBar;
import android.support.v7.app.AppCompatActivity;
import android.view.LayoutInflater;
import android.view.View;
import android.view.ViewGroup;
import android.webkit.WebSettings;
import android.webkit.WebView;
import android.webkit.WebViewClient;
import android.widget.Toast;

import com.github.ksoichiro.android.observablescrollview.ObservableScrollViewCallbacks;
import com.github.ksoichiro.android.observablescrollview.ScrollState;

/**
 * Created by Dell on 2/16/2018.
 */

public class Tab1_AdmissionSteps extends Fragment  {

    WebView wv;
    ActionBar toolbar;
```

```
    @Override
    public View onCreateView(LayoutInflater inflater, ViewGroup container,
                             Bundle savedInstanceState) {
        View rootView = inflater.inflate(R.layout.admissionsteps_tab1, container, false);
        toolbar =  ((AppCompatActiavity)getActivity()).getSupportActionBar();
        toolbar.setTitle("Admission Steps");

        wv = (WebView)rootView.findViewById(R.id.webadmstep);
        wv.loadUrl("file:///android_asset/Admissionoverviewsteps.html");

        wv.getSettings().setLoadWithOverviewMode(true);
        wv.getSettings().setUseWideViewPort(true);

        //make webview zoomable
        wv.getSettings().setBuiltInZoomControls(true);
        wv.getSettings().setDisplayZoomControls(true);

        // Enable Javascript
        WebSettings webSettings = wv.getSettings();
        webSettings.setJavaScriptEnabled(true);

        String answer;
        answer = "Please wait loading Admission Steps...";
        Toast.makeText(getActivity(), answer, Toast.LENGTH_SHORT).show();

        // Force links and redirects to open in the WebView instead of in a browser
        wv.setWebViewClient(new WebViewClient());

        return rootView;
    }

}
```

(Tab2)

```
package com.org.arkp.admissionguidance;

import android.content.Intent;
import android.os.Bundle;
import android.support.v4.app.Fragment;
import android.support.v7.app.ActionBar;
import android.support.v7.app.AppCompatActivity;
import android.view.LayoutInflater;
import android.view.View;
import android.view.ViewGroup;
import android.view.animation.Animation;
import android.view.animation.AnimationUtils;
import android.webkit.WebSettings;
import android.webkit.WebView;
import android.webkit.WebViewClient;
import android.widget.Button;
import android.widget.Toast;

import com.github.ksoichiro.android.observablescrollview.ObservableScrollViewCallbacks;
import com.github.ksoichiro.android.observablescrollview.ScrollState;

/**
 * Created by Waqar on 2/16/2018.
 */

public class Tab2_AdmissionSteps extends Fragment implements
View.OnClickListener,Animation.AnimationListener {

    WebView wv;
    ActionBar toolbar;
    Animation animBounce;
```

```
Button b1,b2,b3,b4,b5,b6;
 @Override
 public View onCreateView(LayoutInflater inflater, ViewGroup container,
                          Bundle savedInstanceState) {
     View view = inflater.inflate(R.layout.admissionsteps_tab2, container, false);
     getActivity().getActionBar();
     toolbar =  ((AppCompatActivity)getActivity()).getSupportActionBar();

    b1 = (Button) view.findViewById(R.id.admissionformfilling);
     b2 = (Button) view.findViewById(R.id.documentrequirement);
     b3 = (Button) view.findViewById(R.id.adguide);
     b4 =(Button) view.findViewById(R.id.scdates);
     b5 = (Button) view.findViewById(R.id.feeApproved);
     b6 = (Button) view.findViewById(R.id.feeStruct);

     b1.setOnClickListener(this);
     b2.setOnClickListener(this);
     b3.setOnClickListener(this);
     b4.setOnClickListener(this);
     b5.setOnClickListener(this);
     b6.setOnClickListener(this);


     // load the animation
     animBounce = AnimationUtils.loadAnimation(getActivity().getApplicationContext(),
             R.anim.bounce);
     // set animation listener
     animBounce.setAnimationListener(this);

     //Applying animation on button

     b1.setVisibility(View.VISIBLE);
     b1.startAnimation(animBounce);

     b2.setVisibility(View.VISIBLE);
     b2.startAnimation(animBounce);

     b3.setVisibility(View.VISIBLE);
     b3.startAnimation(animBounce);

     b4.setVisibility(View.VISIBLE);
     b4.startAnimation(animBounce);

     b5.setVisibility(View.VISIBLE);
     b5.startAnimation(animBounce);

     b6.setVisibility(View.VISIBLE);
     b6.startAnimation(animBounce);



     return view;
 }


 @Override
 public void onClick(View view) {

     switch (view.getId()) {
         case R.id.admissionformfilling:
             Intent i1 =new Intent(getActivity(),AddmissionformFActivity.class);
             startActivity(i1);
             getActivity().finish();
             getActivity().overridePendingTransition(R.anim.pull_in_right,
R.anim.push_out_left);
             break;
```

```
            case R.id.documentrequirement:
                Intent i2 =new Intent(getActivity(),DocumentRequirementActivity.class);
                startActivity(i2);
                getActivity().finish();
                getActivity().overridePendingTransition(R.anim.pull_in_right,
R.anim.push_out_left);
                break;


            case R.id.scdates:
                Intent i3 =new Intent(getActivity(),AdmmScheduleDatesActivity.class);
                startActivity(i3);
                getActivity().finish();
                getActivity().overridePendingTransition(R.anim.pull_in_right,
R.anim.push_out_left);
                break;


            case R.id.adguide:
                Intent i4 =new Intent(getActivity(),AdmissionGuidelinesActivity.class);
                startActivity(i4);
                getActivity().finish();
                getActivity().overridePendingTransition(R.anim.pull_in_right,
R.anim.push_out_left);
                break;


            case R.id.feeApproved:
                Intent i5 =new Intent(getActivity(),FeesStructureApprovedActivity.class);
                startActivity(i5);
                getActivity().finish();
                getActivity().overridePendingTransition(R.anim.pull_in_right,
R.anim.push_out_left);
                break;


            case R.id.feeStruct:
                Intent i6 =new Intent(getActivity(),FeesStructureActivity.class);
                startActivity(i6);
                getActivity().finish();
                getActivity().overridePendingTransition(R.anim.pull_in_right,
R.anim.push_out_left);
                break;

        }

    }


    //Animation Listner methods
    @Override
    public void onAnimationStart(Animation animation) {

    }

    @Override
    public void onAnimationEnd(Animation animation) {
    }
    @Override
    public void onAnimationRepeat(Animation animation) {

    }
}
```

Child Classes (Admission Steps > AdmissionHelp (Tab2)):
Xml Code:

(Admission Form Filling)

```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context="com.org.arkp.admissionguidance.AddmissionformFActivity">

    <WebView
        android:id="@+id/Webformfilling"
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:layout_centerHorizontal="true"
        android:layout_centerVertical="true" />

</RelativeLayout>
```

(Document Requirement)

```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context="com.org.arkp.admissionguidance.DocumentRequirementActivity">

    <WebView
        android:id="@+id/Webdocreq"
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:layout_centerHorizontal="true"
        android:layout_centerVertical="true" />

</RelativeLayout>
```

(Admission Schedule Dates)

```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context="com.org.arkp.admissionguidance.AdmmScheduleDatesActivity">

    <WebView
        android:id="@+id/Websch"
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:layout_centerHorizontal="true"
        android:layout_centerVertical="true" />
</RelativeLayout>
```

(Admission Guidelines)

```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
```

```
    tools:context="com.org.arkp.admissionguidance.AdmissionGuidelinesActivity">
    <WebView
        android:id="@+id/Webgui"
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:layout_centerHorizontal="true"
        android:layout_centerVertical="true" />

</RelativeLayout>
```

(Fees Structure Approved)

```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context="com.org.arkp.admissionguidance.FeesStructureApprovedActivity">
    <WebView
        android:id="@+id/Webfar"
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:layout_centerHorizontal="true"
        android:layout_centerVertical="true" />
</RelativeLayout>
```

(Fees Structure)

```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context="com.org.arkp.admissionguidance.FeesStructureActivity">
    <WebView
        android:id="@+id/Webfes"
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:layout_centerHorizontal="true"
        android:layout_centerVertical="true" />

</RelativeLayout>
```

Java Code:

(Admission Form Filling)

```
package com.org.arkp.admissionguidance;

import android.content.Intent;
import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;
import android.view.MenuItem;
import android.view.Window;
import android.view.WindowManager;
import android.webkit.WebView;
import android.widget.Toast;

public class AddmissionformFActivity extends AppCompatActivity {

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_addmissionform_f);
        setTitle("Admission Form Filling");
        Window w = this.getWindow();
```

```
        //set task bar translucent & also color

        w.clearFlags(WindowManager.LayoutParams.FLAG_TRANSLUCENT_STATUS);
        w.addFlags(WindowManager.LayoutParams.FLAG_DRAWS_SYSTEM_BAR_BACKGROUNDS);
        //w.setStatusBarColor(Color.parseColor("#FFFA635E"));

        getSupportActionBar().setDisplayHomeAsUpEnabled(true);
        getSupportActionBar().setDisplayShowHomeEnabled(true);

        WebView wv;

        wv = (WebView) findViewById(R.id.Webformfilling);
        wv.getSettings().setLoadWithOverviewMode(true);
        wv.getSettings().setUseWideViewPort(true);
        wv.loadUrl("file:///android_asset/admstepbystepfilling.html");

        //make webview zoomable
        wv.getSettings().setBuiltInZoomControls(true);
        wv.getSettings().setDisplayZoomControls(false);

        String answer;
        answer = "Please wait loading Admission Form Filling Steps...";
        Toast.makeText(getApplicationContext(), answer, Toast.LENGTH_LONG).show();
    }

    // back arrow
    @Override
    public boolean onOptionsItemSelected(MenuItem item) {
        switch (item.getItemId()) {
            case android.R.id.home:
                Intent intent = new Intent(AddmissionformFActivity.this,
AdmissionStepsActivity.class);
                startActivity(intent);
                finish();
                return true;
            default:
                return super.onOptionsItemSelected(item);
        }
    }

    //kill Current College info activity on back button pressed
    @Override
    public void onBackPressed() {
        Intent intent = new Intent(AddmissionformFActivity.this, AdmissionStepsActivity.class);
        startActivity(intent);
        finish();
    }
}
```

(Document Requirement)

```
package com.org.arkp.admissionguidance;
import android.content.Intent;
import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;
import android.view.MenuItem;
import android.view.Window;
import android.view.WindowManager;
import android.webkit.WebView;
import android.widget.Toast;
public class DocumentRequirementActivity extends AppCompatActivity {
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
```

```
        setContentView(R.layout.activity_document_requirement);

        setTitle("Document Requirement");
        Window w = this.getWindow();

        //set task bar translucent & also color

        w.clearFlags(WindowManager.LayoutParams.FLAG_TRANSLUCENT_STATUS);
        w.addFlags(WindowManager.LayoutParams.FLAG_DRAWS_SYSTEM_BAR_BACKGROUNDS);
        //w.setStatusBarColor(Color.parseColor("#FFFA635E"));

        getSupportActionBar().setDisplayHomeAsUpEnabled(true);
        getSupportActionBar().setDisplayShowHomeEnabled(true);

        WebView wv;

        wv = (WebView) findViewById(R.id.Webdocreq);
        wv.getSettings().setLoadWithOverviewMode(true);
        wv.getSettings().setUseWideViewPort(true);
        wv.loadUrl("file:///android_asset/AdmmDocRequirement.html");

        //make webview zoomable
        wv.getSettings().setBuiltInZoomControls(true);
        wv.getSettings().setDisplayZoomControls(false);

        String answer;
        answer = "Please wait loading Admission Document Requirements...";
        Toast.makeText(getApplicationContext(), answer, Toast.LENGTH_LONG).show();
    }

    // back arrow
    @Override
    public boolean onOptionsItemSelected(MenuItem item) {
        switch (item.getItemId()) {
            case android.R.id.home:
                Intent intent = new Intent(DocumentRequirementActivity.this,
AdmissionStepsActivity.class);
                startActivity(intent);
                finish();
                return true;
            default:
                return super.onOptionsItemSelected(item);
        }
    }

    //kill Current College info activity on back button pressed
    @Override
    public void onBackPressed() {
        Intent intent = new Intent(DocumentRequirementActivity.this,
AdmissionStepsActivity.class);
        startActivity(intent);
        finish();
    }

}
```

(Admission Schedule Dates)

```
package com.org.arkp.admissionguidance;

import android.content.Intent;
import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;
import android.view.MenuItem;
import android.view.Window;
```

```
import android.view.WindowManager;
import android.webkit.WebView;
import android.widget.Toast;

public class AdmmScheduleDatesActivity extends AppCompatActivity {

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_admm_schedule_dates);
        setTitle("Admission Schedules");
        Window w = this.getWindow();

        //set task bar translucent & also color

        w.clearFlags(WindowManager.LayoutParams.FLAG_TRANSLUCENT_STATUS);
        w.addFlags(WindowManager.LayoutParams.FLAG_DRAWS_SYSTEM_BAR_BACKGROUNDS);
        //w.setStatusBarColor(Color.parseColor("#FFFA635E"));

        getSupportActionBar().setDisplayHomeAsUpEnabled(true);
        getSupportActionBar().setDisplayShowHomeEnabled(true);

        WebView wv;

        wv = (WebView) findViewById(R.id.Websch);
        wv.getSettings().setLoadWithOverviewMode(true);
        wv.getSettings().setUseWideViewPort(true);
        wv.loadUrl("file:///android_asset/admschedule.html");

        //make webview zoomable
        wv.getSettings().setBuiltInZoomControls(true);
        wv.getSettings().setDisplayZoomControls(false);

        String answer;
        answer = "Please wait loading Admission Scheduled Dates...";
        Toast.makeText(getApplicationContext(), answer, Toast.LENGTH_LONG).show();
    }

    // back arrow
    @Override
    public boolean onOptionsItemSelected(MenuItem item) {
        switch (item.getItemId()) {
            case android.R.id.home:
                Intent intent = new Intent(AdmmScheduleDatesActivity.this,
AdmissionStepsActivity.class);
                startActivity(intent);
                finish();
                return true;
            default:
                return super.onOptionsItemSelected(item);
        }
    }

    //kill Current College info activity on back button pressed
    @Override
    public void onBackPressed() {
        Intent intent = new Intent(AdmmScheduleDatesActivity.this,
AdmissionStepsActivity.class);
        startActivity(intent);
        finish();
    }
}
```

(Admission Guidlines)

```
package com.org.arkp.admissionguidance;

import android.content.Intent;
import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;
import android.view.MenuItem;
import android.view.Window;
import android.view.WindowManager;
import android.webkit.WebView;
import android.widget.Toast;

public class AdmissionGuidelinesActivity extends AppCompatActivity {

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_admission_guidelines);

        setTitle("Admission Guidelines");
        Window w = this.getWindow();

        //set task bar translucent & also color

        w.clearFlags(WindowManager.LayoutParams.FLAG_TRANSLUCENT_STATUS);
        w.addFlags(WindowManager.LayoutParams.FLAG_DRAWS_SYSTEM_BAR_BACKGROUNDS);
        //w.setStatusBarColor(Color.parseColor("#FFFA635E"));

        getSupportActionBar().setDisplayHomeAsUpEnabled(true);
        getSupportActionBar().setDisplayShowHomeEnabled(true);

        WebView wv;

        wv = (WebView) findViewById(R.id.Webgui);
        wv.getSettings().setLoadWithOverviewMode(true);
        wv.getSettings().setUseWideViewPort(true);
        wv.loadUrl("file:///android_asset/Ams.html");

        //make webview zoomable
        wv.getSettings().setBuiltInZoomControls(true);
        wv.getSettings().setDisplayZoomControls(false);

        String answer;
        answer = "Please wait loading Admission Guidelines...";
        Toast.makeText(getApplicationContext(), answer, Toast.LENGTH_LONG).show();
    }

    // back arrow
    @Override
    public boolean onOptionsItemSelected(MenuItem item) {
        switch (item.getItemId()) {
            case android.R.id.home:
                Intent intent = new Intent(AdmissionGuidelinesActivity.this,
AdmissionStepsActivity.class);
                startActivity(intent);
                finish();
                return true;
            default:
                return super.onOptionsItemSelected(item);
        }
    }
    //kill Current College info activity on back button pressed
    @Override
    public void onBackPressed() {
        Intent intent = new Intent(AdmissionGuidelinesActivity.this,
AdmissionStepsActivity.class);
        startActivity(intent);
```

```
        finish();
    }
}
```

(Fees Structure Approved)

```
package com.org.arkp.admissionguidance;

import android.content.Intent;
import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;
import android.view.MenuItem;
import android.view.Window;
import android.view.WindowManager;
import android.webkit.WebView;
import android.widget.Toast;

public class FeesStructureApprovedActivity extends AppCompatActivity {
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_fees_structure_approved);
        setTitle("Fees Structure Approved");
        Window w = this.getWindow();
        //set task bar translucent & also color
        w.clearFlags(WindowManager.LayoutParams.FLAG_TRANSLUCENT_STATUS);
        w.addFlags(WindowManager.LayoutParams.FLAG_DRAWS_SYSTEM_BAR_BACKGROUNDS);
        //w.setStatusBarColor(Color.parseColor("#FFFA635E"));
        getSupportActionBar().setDisplayHomeAsUpEnabled(true);
        getSupportActionBar().setDisplayShowHomeEnabled(true);
        WebView wv;
        wv = (WebView) findViewById(R.id.Webfar);
        wv.getSettings().setLoadWithOverviewMode(true);
        wv.getSettings().setUseWideViewPort(true);
        wv.loadUrl("file:///android_asset/FAR.html");
        //make webview zoomable
        wv.getSettings().setBuiltInZoomControls(true);
        wv.getSettings().setDisplayZoomControls(false);
        String answer;
        answer = "Please wait loading FAR...";
        Toast.makeText(getApplicationContext(), answer, Toast.LENGTH_LONG).show();
    }
    // back arrow
    @Override
    public boolean onOptionsItemSelected(MenuItem item) {
        switch (item.getItemId()) {
            case android.R.id.home:
                Intent intent = new Intent(FeesStructureApprovedActivity.this,
AdmissionStepsActivity.class);
                startActivity(intent);
                finish();
                return true;
            default:
                return super.onOptionsItemSelected(item);
        }
    }

    //kill Current activity on back button pressed
    @Override
    public void onBackPressed() {
        Intent intent = new Intent(FeesStructureApprovedActivity.this,
AdmissionStepsActivity.class);
        startActivity(intent);
        finish();
    }
```

(Fees Structure Approved)

```
package com.org.arkp.admissionguidance;
import android.content.Intent;
import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;
import android.view.MenuItem;
import android.view.Window;
import android.view.WindowManager;
import android.webkit.WebView;
import android.widget.Toast;

public class FeesStructureActivity extends AppCompatActivity
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_fees_structure);
        setTitle("Fees Structure");
        Window w = this.getWindow();
        //set task bar translucent & also color
        w.clearFlags(WindowManager.LayoutParams.FLAG_TRANSLUCENT_STATUS);
        w.addFlags(WindowManager.LayoutParams.FLAG_DRAWS_SYSTEM_BAR_BACKGROUNDS);
        //w.setStatusBarColor(Color.parseColor("#FFFA635E"));
        getSupportActionBar().setDisplayHomeAsUpEnabled(true);
        getSupportActionBar().setDisplayShowHomeEnabled(true);
        WebView wv;
        wv = (WebView) findViewById(R.id.Webfes);
        wv.getSettings().setLoadWithOverviewMode(true);
        wv.getSettings().setUseWideViewPort(true);
        wv.loadUrl("file:///android_asset/feest.html");
        //make webview zoomable
        wv.getSettings().setBuiltInZoomControls(true);
        wv.getSettings().setDisplayZoomControls(false);
        String answer;
        answer = "Please wait loading Fees Structure...";
        Toast.makeText(getApplicationContext(), answer, Toast.LENGTH_LONG).show();
    }
    // back arrow
    @Override
    public boolean onOptionsItemSelected(MenuItem item) {
        switch (item.getItemId()) {
            case android.R.id.home:
                Intent intent = new Intent(FeesStructureActivity.this,
AdmissionStepsActivity.class);
                startActivity(intent);
                finish();
                return true;
            default:
                return super.onOptionsItemSelected(item);
        } }

    //kill Current College info activity on back button pressed
    @Override
    public void onBackPressed() {
        Intent intent = new Intent(FeesStructureActivity.this, AdmissionStepsActivity.class);
        startActivity(intent);
        finish();
    }
}
```

SOURCE CODE (Scholarship):

Xml Code:

(Main)

```
<?xml version="1.0" encoding="utf-8"?>
<android.support.design.widget.CoordinatorLayout
xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:id="@+id/main_content"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:fitsSystemWindows="true"
    tools:context="com.org.arkp.admissionguidance.ScholarshipActivity">

    <android.support.design.widget.AppBarLayout
        android:id="@+id/appbar"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:paddingTop="@dimen/appbar_padding_top"
        android:theme="@style/AppTheme.AppBarOverlay">

        <android.support.v7.widget.Toolbar
            android:id="@+id/toolbar"
            android:layout_width="match_parent"
            android:layout_height="?attr/actionBarSize"
            android:layout_weight="1"
            android:background="?attr/colorPrimary"
            app:layout_scrollFlags="scroll|enterAlways"
            app:popupTheme="@style/AppTheme.PopupOverlay"
            app:title="@string/app_name">

        </android.support.v7.widget.Toolbar>

        <android.support.design.widget.TabLayout
            android:id="@+id/tabs"
            android:layout_width="match_parent"
            android:layout_height="wrap_content">

            <android.support.design.widget.TabItem
                android:id="@+id/tabItem"
                android:layout_width="wrap_content"
                android:layout_height="wrap_content"
                android:text="@string/tab_text_1" />

            <android.support.design.widget.TabItem
                android:id="@+id/tabItem2"
                android:layout_width="wrap_content"
                android:layout_height="wrap_content"
                android:text="@string/tab_text_2" />

            <android.support.design.widget.TabItem
                android:id="@+id/tabItem3"
                android:layout_width="wrap_content"
                android:layout_height="wrap_content"
                android:text="@string/tab_text_3" />

        </android.support.design.widget.TabLayout>
    </android.support.design.widget.AppBarLayout>

    <android.support.v4.view.ViewPager
        android:id="@+id/container"
        android:layout_width="match_parent"
        android:layout_height="match_parent"
```

```
        app:layout_behavior="@string/appbar_scrolling_view_behavior" />

</android.support.design.widget.CoordinatorLayout>
```

(Tab1)

```
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context="com.org.arkp.admissionguidance.ScholarshipActivity">

    <TextView
        android:id="@+id/section_label"
        android:layout_marginLeft="5dp"
        android:layout_marginTop="5dp"
        android:text="Important Scholarship Steps/Rules:"
        android:textStyle="bold"
        android:textColor="#000000"
        android:textSize="26dp"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content" />


        <WebView
            android:layout_width="match_parent"
            android:layout_height="match_parent"
            android:layout_alignParentTop="true"
            android:layout_alignParentLeft="true"
            android:layout_alignParentStart="true"
            android:id="@+id/webscholarship"
            />


</RelativeLayout>
```

(Tab 2)

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout
    android:id="@+id/HomeFragment"
    android:orientation="vertical"
    android:layout_width="fill_parent"
    android:layout_height="fill_parent"
    xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:card="http://schemas.android.com/apk/res-auto">


    <com.github.ksoichiro.android.observablescrollview.ObservableScrollView
        android:id="@+id/scroll"
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:fillViewport="true"
        android:background="#2b4e47"
        android:layout_weight="1.0">


        <LinearLayout
            android:orientation="vertical"
            android:padding="0.0dip"
            android:layout_width="fill_parent"
            android:layout_height="0.0dip"
            android:layout_margin="5.0dip"
            android:layout_weight="1.0">

            <!-- Mechanical Engg-->
```

```
            <LinearLayout
                android:orientation="horizontal"
                android:layout_width="match_parent"
                android:layout_height="90.0dip">

                <android.support.v7.widget.CardView
xmlns:android="http://schemas.android.com/apk/res/android"
                    android:layout_width="match_parent"
                    android:layout_height="80dp"
                    android:onClick="onME2"
                    android:layout_marginTop="5dp">


                    <TextView
                        android:layout_width="match_parent"
                        android:layout_height="match_parent"
                        android:text="Mechanical Engineering"
                        android:gravity="center_horizontal|center_vertical"
                        android:paddingLeft="40dp"
                        android:textSize="15sp"
                        android:textStyle="bold" />

                    <ImageView
                        android:layout_width="60dp"
                        android:layout_height="60dp"
                        android:layout_gravity="left|center"
                        android:scaleType="centerCrop"
                        android:src="@drawable/ic_mechengg" />

                    <ImageView
                        android:layout_width="wrap_content"
                        android:layout_height="wrap_content"
                        android:src="@drawable/ic_rightbuttton"
                        android:layout_gravity="right|center"
                        />

                </android.support.v7.widget.CardView>
            </LinearLayout>


            <!-- Computer Engg-->
            <LinearLayout
                android:orientation="horizontal"
                android:layout_width="match_parent"
                android:layout_height="90.0dip">

                <android.support.v7.widget.CardView
xmlns:android="http://schemas.android.com/apk/res/android"
                    android:layout_width="match_parent"
                    android:layout_height="80dp"
                    android:onClick="onCO2"
                    android:layout_marginTop="5dp">


                    <TextView
                        android:layout_width="match_parent"
                        android:layout_height="match_parent"
                        android:text="Computer Engineering"
                        android:gravity="center_horizontal|center_vertical"
                        android:paddingLeft="40dp"
                        android:textSize="15sp"
                        android:textStyle="bold" />

                    <ImageView
                        android:layout_width="60dp"
                        android:layout_height="60dp"
                        android:layout_gravity="left|center"
                        android:scaleType="centerCrop"
```

```
                    android:src="@drawable/ic_compuengg" />

                <ImageView
                    android:layout_width="wrap_content"
                    android:layout_height="wrap_content"
                    android:src="@drawable/ic_rightbuttton"
                    android:layout_gravity="right|center"
                    />

            </android.support.v7.widget.CardView>
        </LinearLayout>


        <!-- Civil Engg-->
        <LinearLayout
            android:orientation="horizontal"
            android:layout_width="match_parent"
            android:layout_height="90.0dip">

            <android.support.v7.widget.CardView
xmlns:android="http://schemas.android.com/apk/res/android"
                android:layout_width="match_parent"
                android:layout_height="80dp"
                android:onClick="onCI2"
                android:layout_marginTop="5dp">


                <TextView
                    android:layout_width="match_parent"
                    android:layout_height="match_parent"
                    android:text="Civil Engineering"
                    android:gravity="center_horizontal|center_vertical"
                    android:paddingLeft="40dp"
                    android:textSize="15sp"
                    android:textStyle="bold" />

                <ImageView
                    android:layout_width="60dp"
                    android:layout_height="60dp"
                    android:layout_gravity="left|center"
                    android:scaleType="centerCrop"
                    android:src="@drawable/ic_civilengg" />

                <ImageView
                    android:layout_width="wrap_content"
                    android:layout_height="wrap_content"
                    android:src="@drawable/ic_rightbuttton"
                    android:layout_gravity="right|center"
                    />

            </android.support.v7.widget.CardView>
        </LinearLayout>


        <!-- Humanity Science-->
        <LinearLayout
            android:orientation="horizontal"
            android:layout_width="match_parent"
            android:layout_height="90.0dip"
            android:layout_marginBottom="50dp">

            <android.support.v7.widget.CardView
xmlns:android="http://schemas.android.com/apk/res/android"
                android:layout_width="match_parent"
                android:layout_height="80dp"
                android:onClick="onHS2"
                android:layout_marginTop="5dp">
```

```
                    <TextView
                        android:layout_width="match_parent"
                        android:layout_height="match_parent"
                        android:text="Humanity &amp;amp; Science"
                        android:gravity="center_horizontal|center_vertical"
                        android:paddingLeft="40dp"
                        android:textSize="15sp"
                        android:textStyle="bold" />

                    <ImageView
                        android:layout_width="60dp"
                        android:layout_height="60dp"
                        android:layout_gravity="left|center"
                        android:scaleType="centerCrop"
                        android:src="@drawable/ic_humanityscience" />

                    <ImageView
                        android:layout_width="wrap_content"
                        android:layout_height="wrap_content"
                        android:src="@drawable/ic_rightbuttton"
                        android:layout_gravity="right|center"
                        />

                </android.support.v7.widget.CardView>
            </LinearLayout>


        </LinearLayout>
    </com.github.ksoichiro.android.observablescrollview.ObservableScrollView>


</LinearLayout>
```

Java Code:

(Main)

```
package com.org.arkp.admissionguidance;

import android.content.Intent;
import android.os.Bundle;
import android.support.design.widget.TabLayout;
import android.support.v4.app.Fragment;
import android.support.v4.app.FragmentManager;
import android.support.v4.app.FragmentPagerAdapter;
import android.support.v4.view.ViewPager;
import android.support.v7.app.AppCompatActivity;
import android.support.v7.widget.Toolbar;
import android.view.MenuItem;
import android.view.Window;
import android.view.WindowManager;

public class ScholarshipActivity extends AppCompatActivity {

    /**
     * The {@link android.support.v4.view.PagerAdapter} that will provide
     * fragments for each of the sections. We use a
     * {@link FragmentPagerAdapter} derivative, which will keep every
     * loaded fragment in memory. If this becomes too memory intensive, it
     * may be best to switch to a
     * {@link android.support.v4.app.FragmentStatePagerAdapter}.
     */
    private SectionsPagerAdapter mSectionsPagerAdapter;
```

```
/**
 * The {@link ViewPager} that will host the section contents.
 */
private ViewPager mViewPager;

@Override
protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_cutoff);
    setTitle("Scholarship");

    Window w = this.getWindow();

    //set task bar translucent & also color
    w.clearFlags(WindowManager.LayoutParams.FLAG_TRANSLUCENT_STATUS);
    w.addFlags(WindowManager.LayoutParams.FLAG_DRAWS_SYSTEM_BAR_BACKGROUNDS);
    // w.setStatusBarColor(Color.parseColor("#FFFA635E"));

    Toolbar toolbar = (Toolbar) findViewById(R.id.toolbar);
    setSupportActionBar(toolbar);
    getSupportActionBar().setDisplayHomeAsUpEnabled(true);


    // Create the adapter that will return a fragment for each of the three
    // primary sections of the activity.
    mSectionsPagerAdapter = new SectionsPagerAdapter(getSupportFragmentManager());

    // Set up the ViewPager with the sections adapter.
    mViewPager = (ViewPager) findViewById(R.id.container);
    mViewPager.setAdapter(mSectionsPagerAdapter);

    TabLayout tabLayout = (TabLayout) findViewById(R.id.tabs);
    tabLayout.setupWithViewPager(mViewPager);

}


@Override
public boolean onOptionsItemSelected(MenuItem item) {
    switch (item.getItemId()) {
        case android.R.id.home:
            Intent intent = new Intent(ScholarshipActivity.this, Home.class);
            startActivity(intent);
            finish();
            overridePendingTransition(R.anim.pull_in_left, R.anim.pull_in_left);
            return true;
        default:
            return super.onOptionsItemSelected(item);
    }
}

//kill Current College info activity on bacl button pressed
@Override
public void onBackPressed() {
    Intent intent = new Intent(ScholarshipActivity.this, Home.class);
    startActivity(intent);
    finish();
    overridePendingTransition(R.anim.pull_in_left, R.anim.pull_in_left);
}


/**
 * A {@link FragmentPagerAdapter} that returns a fragment corresponding to
 * one of the sections/tabs/pages.
 */
public class SectionsPagerAdapter extends FragmentPagerAdapter {

    public SectionsPagerAdapter(FragmentManager fm) {
```

```
            super(fm);
        }

        @Override
        public Fragment getItem(int position) {
            switch (position){
                case 0:
                    Tab_Scholarship1 tab1_scholarship = new Tab_Scholarship1();
                    return tab1_scholarship;
                case 1:
                    Tab_Scholarship2 tab2_scholarship = new Tab_Scholarship2();
                    return tab2_scholarship;

                default:
                    return null;

            }
        }

        @Override

        public int getCount() {
            // Show 2 total pages.
            return 2;
        }

        @Override
        public CharSequence getPageTitle(int position) {
            switch (position) {
                case 0:
                    return "Scholarship Rules/Steps";
                case 1:
                    return "Scholarship Websites";
            }
            return null;
        }
    }

}
```

(Tab 1)

```
package com.org.arkp.admissionguidance;

import android.content.Context;
import android.net.ConnectivityManager;
import android.net.NetworkInfo;
import android.os.Bundle;
import android.support.v4.app.Fragment;
import android.support.v7.app.ActionBar;
import android.support.v7.app.AppCompatActivity;
import android.view.LayoutInflater;
import android.view.View;
import android.view.ViewGroup;
import android.webkit.WebSettings;
import android.webkit.WebView;
import android.webkit.WebViewClient;
import android.widget.Toast;

/**
 * Created by Waqar on 1/31/2018.
 */

public class Tab_Scholarship1 extends Fragment {
```

```
    WebView wv;
    String answer;
    ActionBar toolbar;

    @Override
    public View onCreateView(LayoutInflater inflater, ViewGroup container,
                             Bundle savedInstanceState) {
        View rootView = inflater.inflate(R.layout.tab1_scholarship, container, false);

        toolbar =  ((AppCompatActivity)getActivity()).getSupportActionBar();
        toolbar.setTitle("Scholarship");

        wv = (WebView)rootView.findViewById(R.id.webscholarship);
        wv.getSettings().setCacheMode(WebSettings.LOAD_CACHE_ELSE_NETWORK);
        wv.loadUrl("https://swajags.000webhostapp.com/Scholarship.html");

        wv.getSettings().setLoadWithOverviewMode(true);
        wv.getSettings().setUseWideViewPort(true);

        //make webview zoomable
        wv.getSettings().setBuiltInZoomControls(true);
        wv.getSettings().setDisplayZoomControls(true);

        // Enable Javascript
        WebSettings webSettings = wv.getSettings();
        webSettings.setJavaScriptEnabled(true);

        ConnectivityManager cm = (ConnectivityManager)
                getActivity().getSystemService(Context.CONNECTIVITY_SERVICE);
        NetworkInfo activeNetwork = cm.getActiveNetworkInfo();
        if (null == activeNetwork) {
            answer = "Please Check Internet Connection!,To update Scholarship Steps & Rules";
            Toast.makeText(getActivity(), answer, Toast.LENGTH_SHORT).show();
        }
        else {
            String answer;
            answer = "Please wait loading Scholarship Steps & Rules...";
            Toast.makeText(getActivity(), answer, Toast.LENGTH_LONG).show();
        }

        // Force links and redirects to open in the WebView instead of in a browser
        wv.setWebViewClient(new WebViewClient());

        return rootView;
    }
}
```

(Tab 2)

```
package com.org.arkp.admissionguidance;

import android.content.Intent;
import android.net.Uri;
import android.os.Bundle;
import android.support.annotation.Nullable;
import android.support.v4.app.Fragment;
import android.support.v7.app.ActionBar;
import android.support.v7.app.AppCompatActivity;
import android.view.LayoutInflater;
import android.view.View;
import android.view.ViewGroup;
import android.webkit.WebSettings;
import android.webkit.WebView;
import android.webkit.WebViewClient;
import android.widget.Button;
import android.widget.RadioButton;
import android.widget.Toast;
```

```
/**
 * Created by Waqar on 1/31/2018.
 */

public class Tab_Scholarship2 extends Fragment{

    ActionBar toolbar;

    Button DTE, MahaDBT;

    public Tab_Scholarship2() {
        // Required empty public constructor
    }

    @Override

    public View onCreateView(LayoutInflater inflater, ViewGroup container,
                             Bundle savedInstanceState) {
        View rootView = inflater.inflate(R.layout.tab2_scholarship, container, false);

        toolbar = ((AppCompatActivity) getActivity()).getSupportActionBar();
        toolbar.setTitle("Scholarship");

        return rootView;
    }


    @Override
    public void onActivityCreated(@Nullable Bundle savedInstanceState) {
        super.onActivityCreated(savedInstanceState);

        DTE = (Button) getActivity().findViewById(R.id.DTEMW);
        DTE.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                Intent i = new Intent(Intent.ACTION_VIEW);
                i.setData(Uri.parse("https://www.dtemaharashtra.gov.in/scholarships/"));
                getActivity().startActivity(i);
                getActivity().overridePendingTransition(R.anim.pull_in_right,
R.anim.push_out_left);

            }
        });

        MahaDBT = (Button) getActivity().findViewById(R.id.MDBTW);
        MahaDBT.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                Intent i = new Intent(Intent.ACTION_VIEW);
                i.setData(Uri.parse("https://mahadbt.gov.in/DBT/#/"));
                getActivity().startActivity(i);
                getActivity().overridePendingTransition(R.anim.pull_in_right,
R.anim.push_out_left);

            }
        });
    }
}
```

SOURCE CODE (Live Chat Bot):

Xml Code:

(Main)

```
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:background="@drawable/chatboardback"
    android:orientation="vertical" >



    <LinearLayout
        android:layout_width="match_parent"
        android:layout_height="225dp"
        android:layout_alignParentTop="true"
        android:layout_centerHorizontal="true"
        android:gravity="center"
        android:orientation="vertical" >

        <ImageButton
            android:id="@+id/btnSpeak"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:background="@null"
            android:layout_marginTop="40dp"
            android:src="@drawable/ico_mic" />

        <TextView
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:layout_marginTop="10dp"
            android:text="@string/tap_on_mic"
            android:textColor="@color/white"
            android:textSize="15dp"
            android:textStyle="normal" />

    </LinearLayout>

    <ScrollView
        android:layout_width="match_parent"
        android:layout_alignParentBottom="true"
        android:layout_centerHorizontal="true"
        android:orientation="vertical"
        android:layout_marginTop="225dp"
        android:layout_height="match_parent">

        <LinearLayout
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:orientation="vertical">

            <TextView
                android:layout_width="wrap_content"
                android:layout_height="wrap_content"
                android:layout_marginLeft="5dp"
                android:drawableLeft="@drawable/ic_user_icon"
                android:gravity="center"
                android:text="You"
                android:textColor="@color/white" />

            <TextView
                android:id="@+id/txtSpeechInput"
                android:layout_width="wrap_content"
```

```
            android:layout_height="wrap_content"
            android:layout_alignParentTop="true"
            android:layout_centerHorizontal="true"
            android:padding="20dp"
            android:textColor="@color/white"
            android:textSize="26dp"
            android:textStyle="normal" />

        <TextView
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:drawableLeft="@drawable/ic_bot"
            android:gravity="center"
            android:text="JawsBot"
            android:textColor="@color/white" />

        <TextView
            android:id="@+id/outputTex"
            android:text='Tap on mic &amp;amp; Say,\n "What can I ask you?"'
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:layout_alignParentTop="true"
            android:layout_centerHorizontal="true"
            android:padding="20dp"
            android:textColor="@color/white"
            android:textSize="26dp"
            android:textStyle="normal" />

    </LinearLayout>
</ScrollView>

</RelativeLayout>
```

Java Code:

(Main)

```
package com.org.arkp.admissionguidance;


import android.content.ActivityNotFoundException;
import android.content.Context;
import android.content.DialogInterface;
import android.content.Intent;
import android.content.pm.PackageManager;
import android.net.ConnectivityManager;
import android.net.NetworkInfo;
import android.net.Uri;
import android.os.AsyncTask;
import android.provider.Settings;
import android.speech.RecognizerIntent;
import android.speech.tts.TextToSpeech;
import android.support.v4.app.ActivityCompat;
import android.support.v7.app.AlertDialog;
import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;
import android.util.Log;
import android.view.MenuItem;
import android.view.View;
import android.view.Window;
import android.view.WindowManager;
import android.webkit.WebView;
import android.widget.ImageButton;
import android.widget.TextView;
import android.widget.Toast;

import org.json.JSONArray;
import org.json.JSONObject;
```

```
import java.io.BufferedReader;
import java.io.InputStreamReader;
import java.io.OutputStreamWriter;
import java.io.UnsupportedEncodingException;
import java.net.URL;
import java.net.URLConnection;
import java.sql.Connection;
import java.util.ArrayList;
import java.util.Locale;


// Created by WAQAR on 19 feb 2018

public class ChatbotAIListnerActivity extends AppCompatActivity implements
TextToSpeech.OnInitListener {

    private final int REQ_CODE_SPEECH_INPUT = 100;
    ImageButton btnSpeak;
    TextView txtSpeechInput, outputText;
    String answer;

    private TextToSpeech tts;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_chatbot_ailistner);
        setTitle("Chat with JawsBot");
        Window w = this.getWindow();

        //set task bar translucent & also color

        w.clearFlags(WindowManager.LayoutParams.FLAG_TRANSLUCENT_STATUS);
        w.addFlags(WindowManager.LayoutParams.FLAG_DRAWS_SYSTEM_BAR_BACKGROUNDS);

        getSupportActionBar().setDisplayHomeAsUpEnabled(true);
        getSupportActionBar().setDisplayShowHomeEnabled(true);

        //Bot speaks up
        tts = new TextToSpeech(this, this);


        // button on click event

        btnSpeak = (ImageButton) findViewById(R.id.btnSpeak);
        txtSpeechInput = (TextView) findViewById(R.id.txtSpeechInput);
        outputText = (TextView) findViewById(R.id.outputTex);


        btnSpeak.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                promptSpeechInput();

            }
        });
        //Checking For Internet Connection
        ConnectivityManager cm = (ConnectivityManager)
                getApplicationContext().getSystemService(Context.CONNECTIVITY_SERVICE);

        NetworkInfo activeNetwork = cm.getActiveNetworkInfo();
        if (null == activeNetwork) {
            answer = "Please check internet connection!!";
            outputText.setText("Please check internet connection or I will not able to answer
your questions!");
            Toast.makeText(getApplicationContext(), answer, Toast.LENGTH_LONG).show();
        } else {
```

```
            answer = "Now Talk to JawsBot";
            Toast.makeText(getApplicationContext(), answer, Toast.LENGTH_SHORT).show();
        }


    }


    @Override
    public void onDestroy() {
        // shutdown bot tts voice!
        if (tts != null) {
            tts.stop();
            tts.shutdown();
        }
        super.onDestroy();
    }


    @Override
    public void onInit(int status) {
        if (status == TextToSpeech.SUCCESS) {

            int result = tts.setLanguage(Locale.US);

            if (result == TextToSpeech.LANG_MISSING_DATA
                    || result == TextToSpeech.LANG_NOT_SUPPORTED) {
                Log.e("TTS", "This Language is not supported");
            } else {
                btnSpeak.setEnabled(true);
                speakOut();
            }

        } else {
            Log.e("TTS", "Initilization Failed!");
        }
    }


    private void speakOut() {
        float f1 = (float) 0.9;
        float f2 = (float) 0.9;
        String text = outputText.getText().toString();
        tts.setLanguage(Locale.US);
        tts.setPitch(f1);
        tts.setSpeechRate(f2);
        tts.speak(text, TextToSpeech.QUEUE_FLUSH, null);
    }

    // back arrow
    @Override
    public boolean onOptionsItemSelected(MenuItem item) {
        switch (item.getItemId()) {
            case android.R.id.home:
                Intent intent = new Intent(ChatbotAIListnerActivity.this, Home.class);
                startActivity(intent);
                finish();
                overridePendingTransition(R.anim.pull_in_left, R.anim.pull_in_left);
                return true;
            default:
                return super.onOptionsItemSelected(item);
        }
    }

    //kill Current College info activity on back button pressed
    @Override
    public void onBackPressed() {
        Intent intent = new Intent(ChatbotAIListnerActivity.this, Home.class);
```

```
        startActivity(intent);
        finish();
        overridePendingTransition(R.anim.pull_in_left, R.anim.pull_in_left);
    }

    /**
     * Showing google speech input dialog
     */
    private void promptSpeechInput() {

        Intent intent = new Intent(RecognizerIntent.ACTION_RECOGNIZE_SPEECH);
        intent.putExtra(RecognizerIntent.EXTRA_LANGUAGE_MODEL,
                RecognizerIntent.LANGUAGE_MODEL_FREE_FORM);
        // intent.putExtra(RecognizerIntent.EXTRA_LANGUAGE, Locale.getDefault());
        intent.putExtra(RecognizerIntent.EXTRA_PROMPT,
                "Say Something to jawsBot");
        try {
            startActivityForResult(intent, REQ_CODE_SPEECH_INPUT);
        } catch (ActivityNotFoundException a) {
            Toast.makeText(getApplicationContext(),
                    "Sorry! Your device doesn\\'t support speech input",
                    Toast.LENGTH_SHORT).show();
        }
    }

    /**
     * Receiving speech input
     */
    @Override
    protected void onActivityResult(int requestCode, int resultCode, Intent data) {
        super.onActivityResult(requestCode, resultCode, data);

        switch (requestCode) {
            case REQ_CODE_SPEECH_INPUT: {
                if (resultCode == RESULT_OK && null != data) {

                    ArrayList<String> result = data
                            .getStringArrayListExtra(RecognizerIntent.EXTRA_RESULTS);
                    String userQuery = result.get(0);
                    txtSpeechInput.setText(userQuery);
                    RetrieveFeedTask task = new RetrieveFeedTask();
                    task.execute(userQuery);


                    String str = (String) txtSpeechInput.getText();
                    if (str.equals("what can I ask you")) {
                        final CharSequence list[] = new CharSequence[]{"1. Show College
Location", "2. Show Important dates", "3. Show Important websites", "4. Show College Info", "5.
How to Fill Admission Form?", "6. What document required in Admission form Filling?", "7. Call
in College"};

                        AlertDialog.Builder b = new AlertDialog.Builder(this);
                        b.setTitle("This is,What can you Ask me... or Simply select from this
List");
                        b.setItems(list, new DialogInterface.OnClickListener() {
                            @Override
                            public void onClick(DialogInterface dialogInterface, int i) {

                                switch (i) {
                                    case 0:
                                        startActivity(new Intent(ChatbotAIListnerActivity.this,
MapsActivity.class));
                                        ChatbotAIListnerActivity.this.finish();
                                        break;
                                    case 1:
                                        startActivity(new Intent(ChatbotAIListnerActivity.this,
KeyDatesActivity.class));
                                        ChatbotAIListnerActivity.this.finish();
```

```
                                    break;
                                case 2:
                                    startActivity(new Intent(ChatbotAIListnerActivity.this,
WebsitesActivity.class));
                                    ChatbotAIListnerActivity.this.finish();
                                    break;
                                case 3:
                                    startActivity(new Intent(ChatbotAIListnerActivity.this,
CollegeInfoActivity.class));
                                    ChatbotAIListnerActivity.this.finish();
                                    break;
                                case 4:
                                    startActivity(new Intent(ChatbotAIListnerActivity.this,
AddmissionformFActivity.class));
                                    ChatbotAIListnerActivity.this.finish();
                                    break;
                                case 5:
                                    startActivity(new Intent(ChatbotAIListnerActivity.this,
DocumentRequirementActivity.class));
                                    ChatbotAIListnerActivity.this.finish();
                                    break;
                                case 6:
                                    Intent callIntent = new Intent(Intent.ACTION_CALL);
                                    callIntent.setData(Uri.parse("tel:1800223278"));
                                    if
(ActivityCompat.checkSelfPermission(ChatbotAIListnerActivity.this,
android.Manifest.permission.CALL_PHONE) != PackageManager.PERMISSION_GRANTED) {
                                        // TODO: Consider calling
                                        //    ActivityCompat#requestPermissions
                                        // here to request the missing permissions, and
then overriding
                                        //   public void onRequestPermissionsResult(int
requestCode, String[] permissions,
                                        //                                          int[]
grantResults)
                                        // to handle the case where the user grants the
permission. See the documentation
                                        // for ActivityCompat#requestPermissions for more
details.
                                        return;
                                    }
                                    startActivity(callIntent);

                                }

                            }
                        });
                        b.show();
                    }
                    if (str.equals("show College location")||str.equals("show college
location"))
                    {
                        startActivity(new Intent(this,MapsActivity.class));
                        this.finish();
                    }

                    if (str.equals("show College info")||str.equals("show college info"))
                    {
                        startActivity(new Intent(this,CollegeInfoActivity.class));
                        this.finish();
                    }
                    if (str.equals("show important dates"))
                    {
                        startActivity(new Intent(this,KeyDatesActivity.class));
                        this.finish();
                    }
                    if (str.equals("show important websites")|| str.equals("show important
Websites"))
```

```
                    {
                        startActivity(new Intent(this,WebsitesActivity.class));
                        this.finish();
                    }
                    if (str.equals("how to fill admission form"))
                    {
                        startActivity(new Intent(this,AddmissionformFActivity.class));
                        this.finish();
                    }

                    if (str.equals("document required in admission form filling")||
str.equals("what document required in admission form filling"))
                    {
                        startActivity(new Intent(this,DocumentRequirementActivity.class));
                        this.finish();
                    }
                    if(str.equals("call in college")){
                        Intent callIntent = new Intent(Intent.ACTION_CALL);
                        callIntent.setData(Uri.parse("tel:1800223278"));
                        startActivity(callIntent);
                    }

                }
                break;
            }

        }
    }



    // Create GetText Metod
    public String GetText(String query) throws UnsupportedEncodingException {

        String text = "";
        BufferedReader reader = null;

        // Send data
        try {

            // Defined URL  where to send data
            URL url = new URL("https://api.dialogflow.com/v1/query?v=20150910");

            // Send POST data request

            URLConnection conn = url.openConnection();
            conn.setDoOutput(true);
            conn.setDoInput(true);

            conn.setRequestProperty("Authorization", "Bearer " +
"1c6a0c973a0c42b7b03ed8f67f6379a0");
            conn.setRequestProperty("Content-Type", "application/json");

            //Create JSONObject here
            JSONObject jsonParam = new JSONObject();
            JSONArray queryArray = new JSONArray();
            queryArray.put(query);
            jsonParam.put("query", queryArray);
            //   jsonParam.put("name", "order a medium pizza");
            jsonParam.put("lang", "en");
            jsonParam.put("sessionId", "1234567890");


            OutputStreamWriter wr = new OutputStreamWriter(conn.getOutputStream());
            Log.d("karma", "after conversion is " + jsonParam.toString());
            wr.write(jsonParam.toString());
            wr.flush();
            Log.d("karma", "json is " + jsonParam);
```

```
        // Get the server response

        reader = new BufferedReader(new InputStreamReader(conn.getInputStream()));
        StringBuilder sb = new StringBuilder();
        String line = null;


        // Read Server Response
        while ((line = reader.readLine()) != null) {
            // Append server response in string
            sb.append(line + "\n");
        }


        text = sb.toString();



        JSONObject object1 = new JSONObject(text);
        JSONObject object = object1.getJSONObject("result");
        JSONObject fulfillment = null;
        String speech = null;
        //  if (object.has("fulfillment")) {
        fulfillment = object.getJSONObject("fulfillment");
        //      if (fulfillment.has("speech")) {
        speech = fulfillment.optString("speech");
        //  }
        // }






        Log.d("karma ", "response is " + text);
        return speech;


    } catch (Exception ex) {
        Log.d("karma", "exception at last " + ex);
    } finally {
        try {

            reader.close();
        } catch (Exception ex) {
        }
    }

    return null;


}



class RetrieveFeedTask extends AsyncTask<String, Void, String> {

    @Override
    protected String doInBackground(String... voids) {
        String s = null;
        try {

            s = GetText(voids[0]);


        } catch (UnsupportedEncodingException e) {
```

```
                e.printStackTrace();
                Log.d("karma", "Exception occurred " + e);
            }

            return s;
        }

        @Override
        protected void onPostExecute(String s) {
            super.onPostExecute(s);
            outputText.setText(s);
            speakOut();
        }

    }
}
```

4.4 Results & Reports

- **Navigation Drawer:**

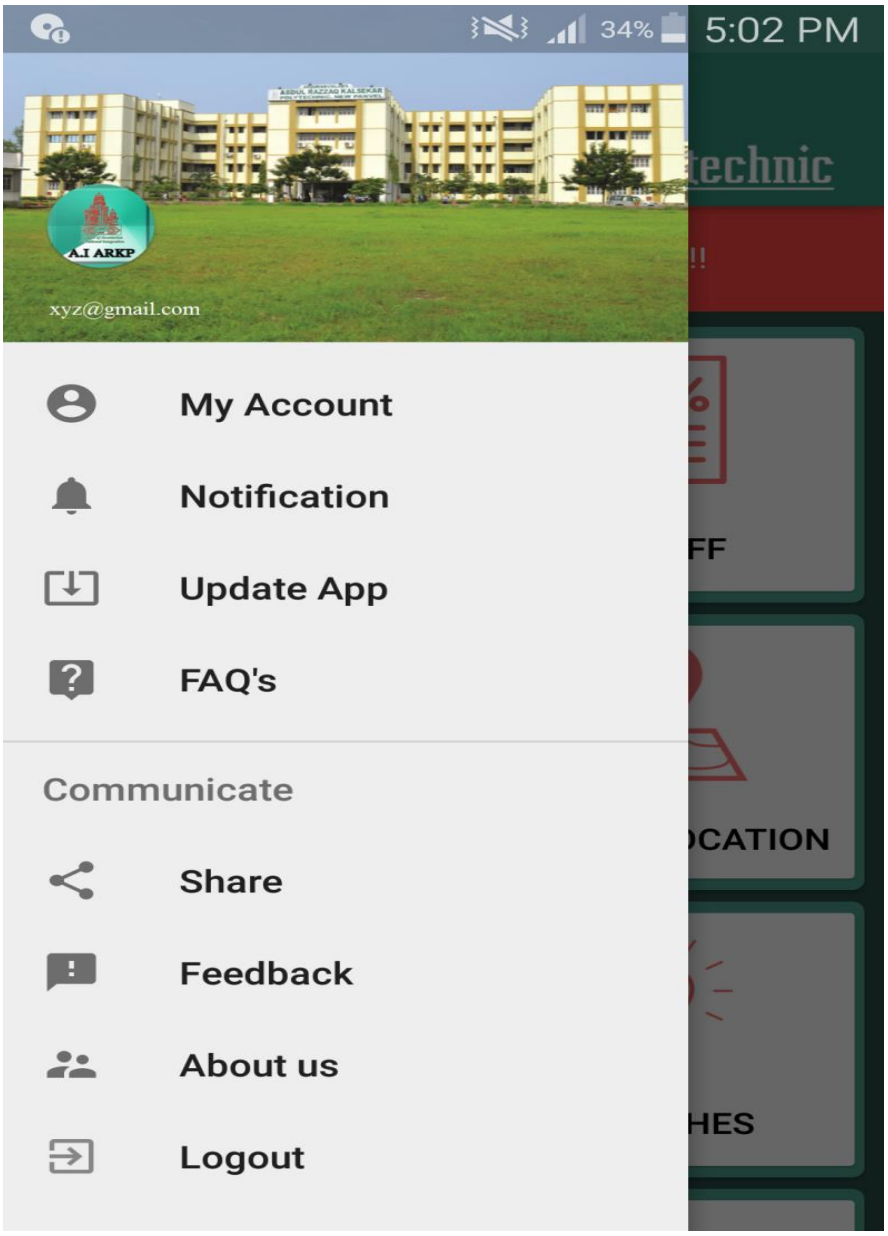


Fig 4.5: Navigation Drawer.

➢ **Home:**

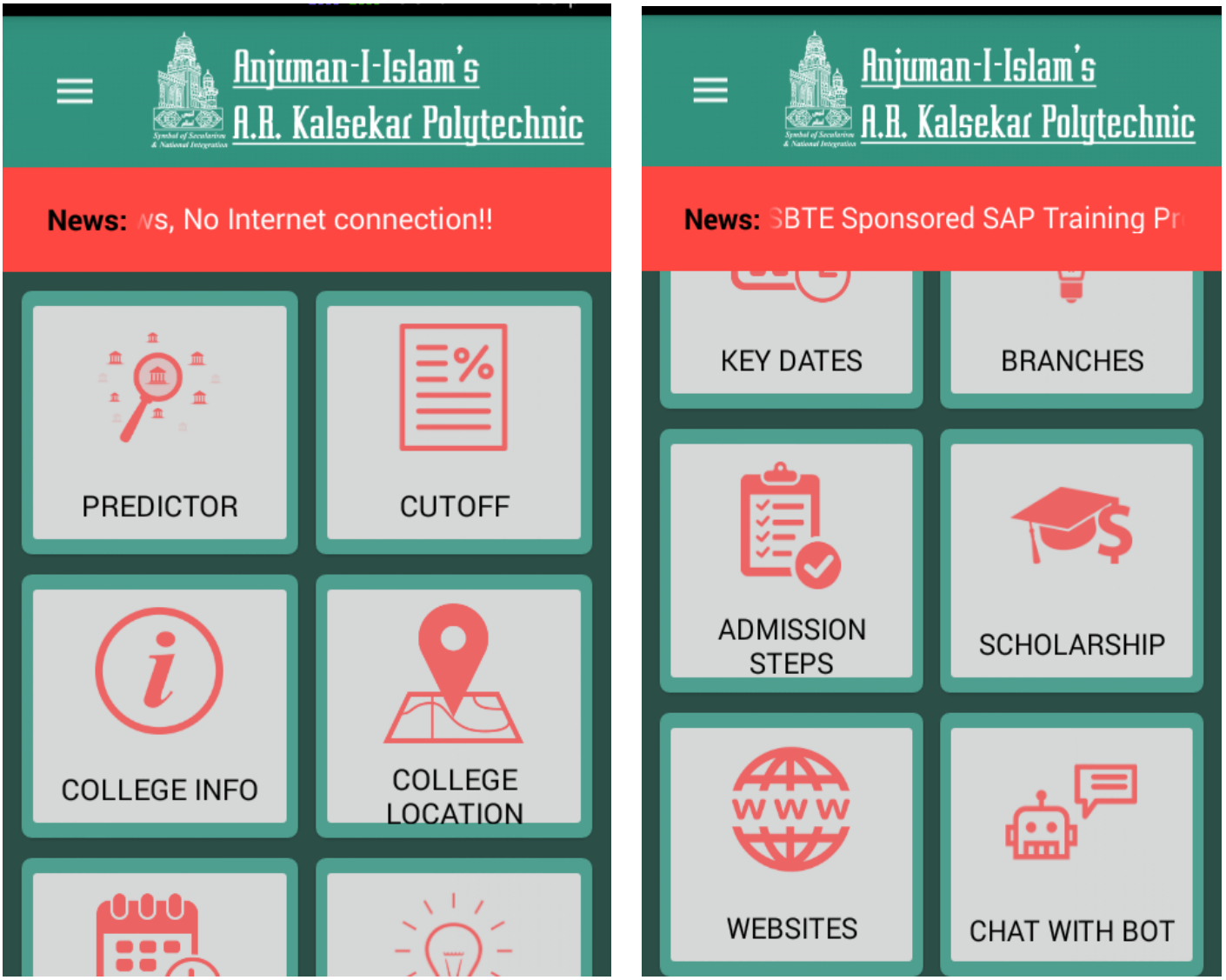


Fig 4.6: Home.

➢ **Predictor:**

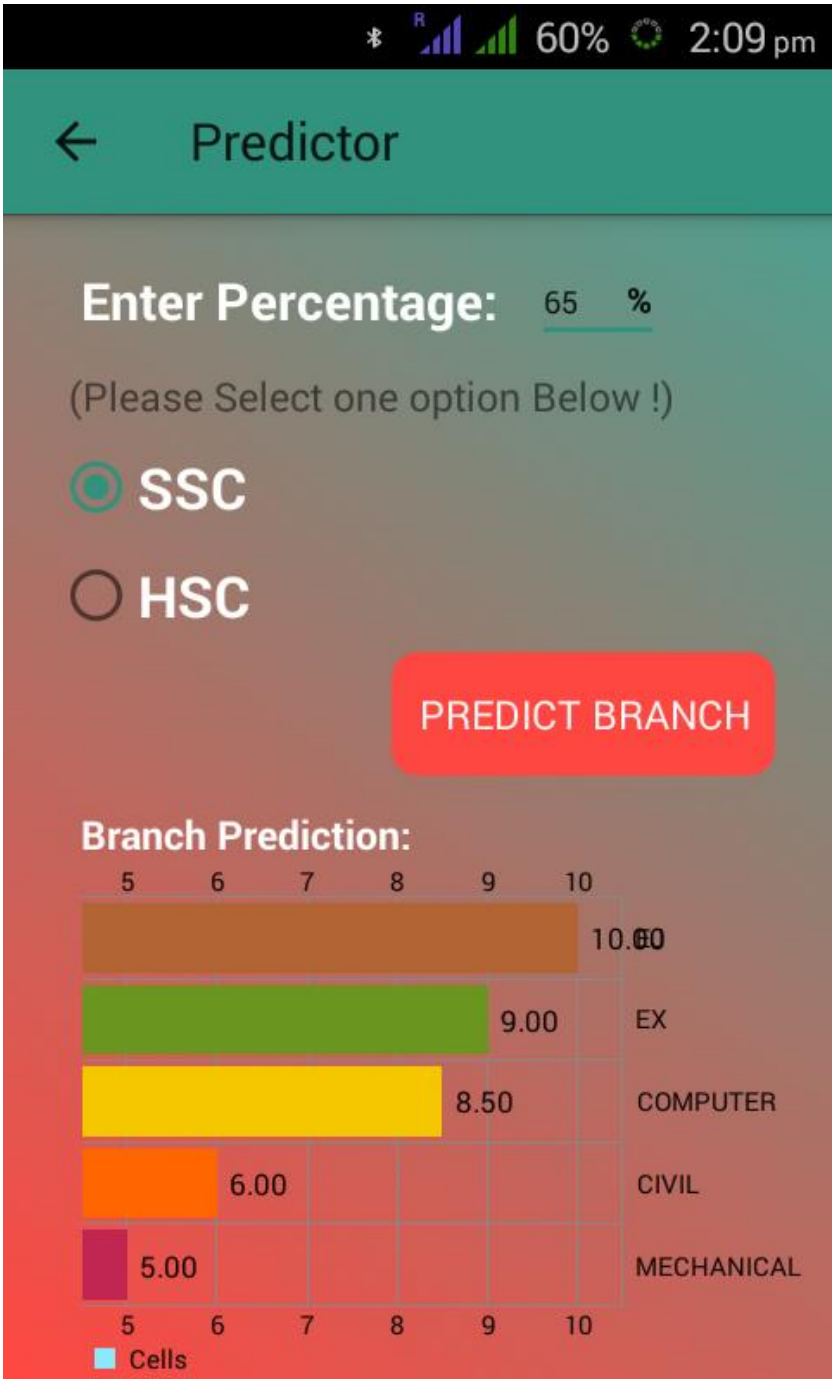


Fig 4.7: Predictor.

➢ **College Info:**

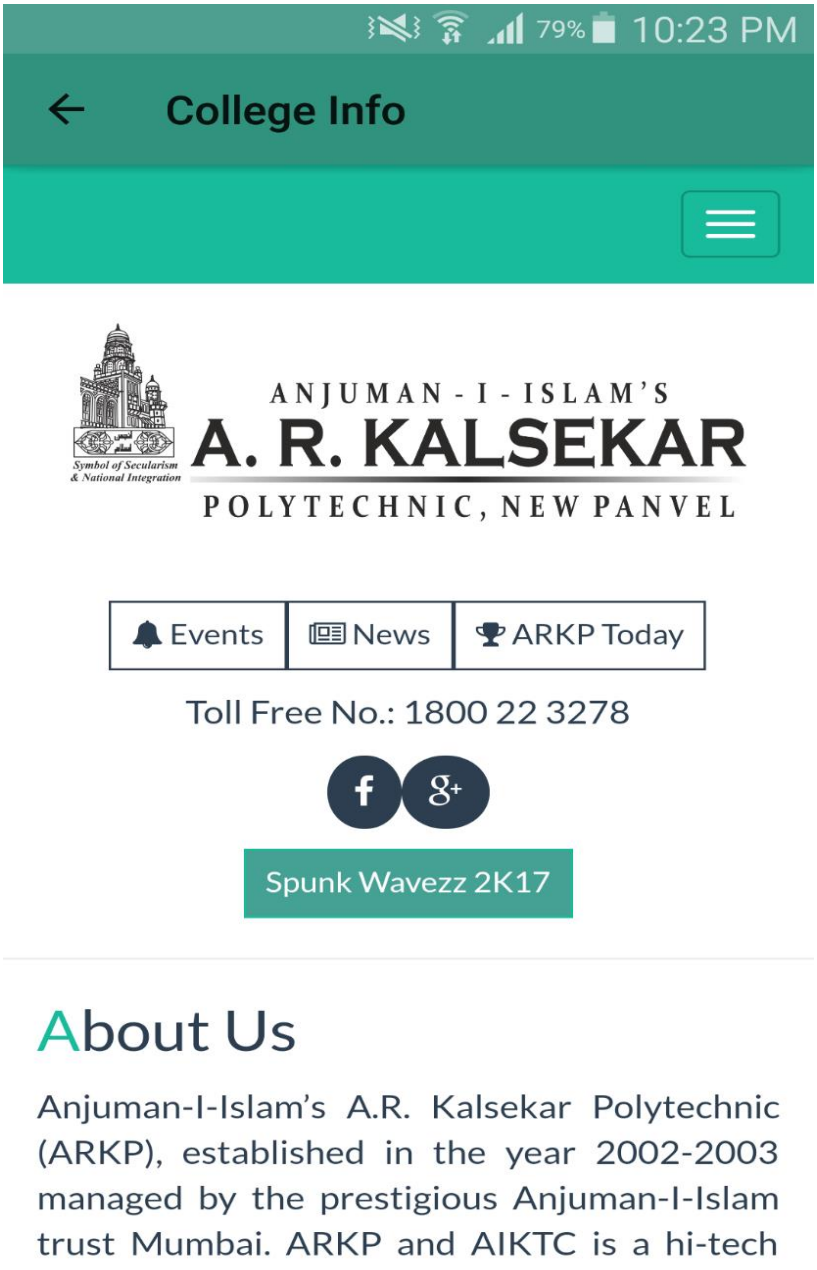
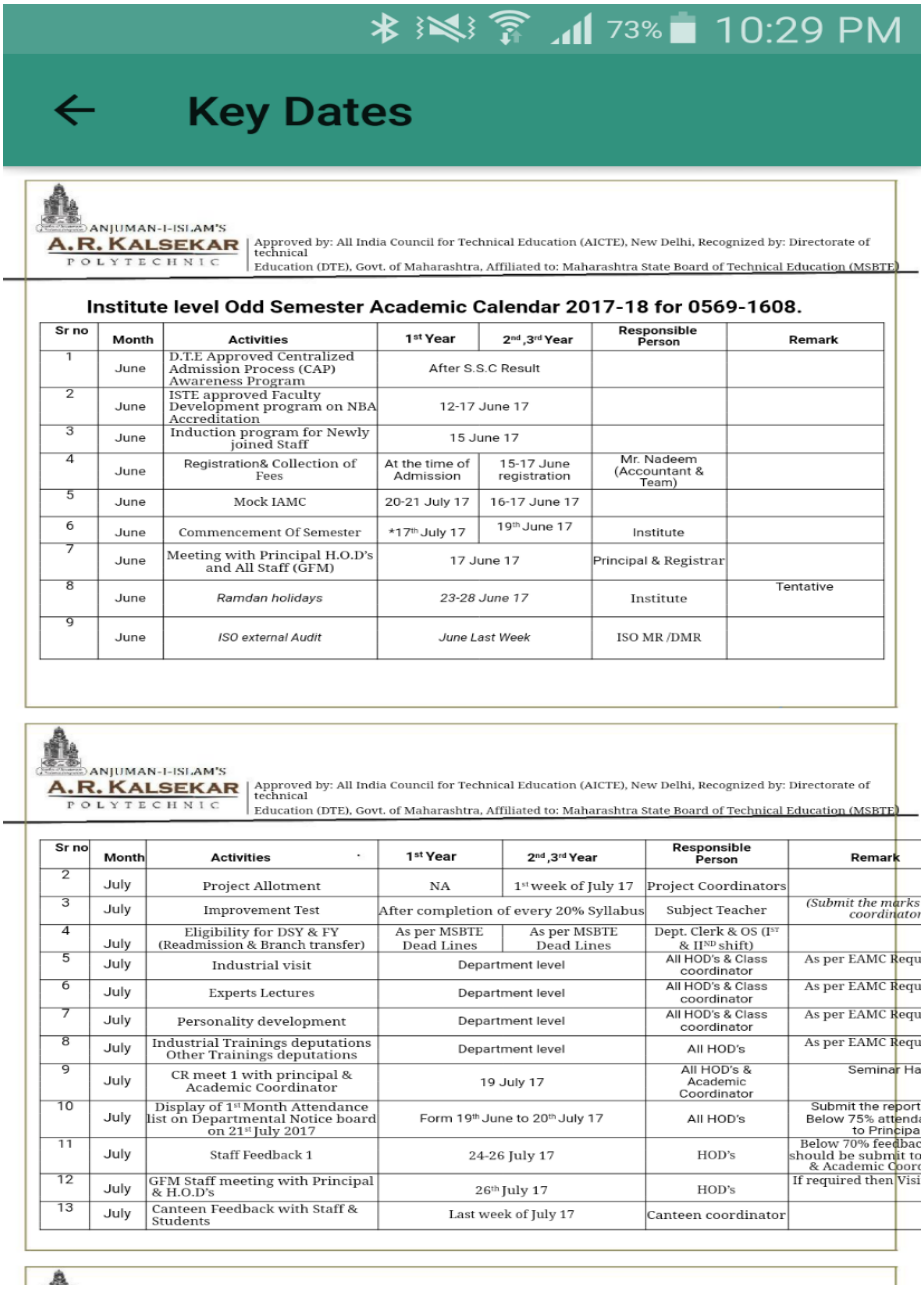


Fig 4.8: College Info.

➢ Key Dates:



73% 10:29 PM

Key Dates

ANJUMAN-I-ISLAM'S
A.R. KALSEKAR POLYTECHNIC

Approved by: All India Council for Technical Education (AICTE), New Delhi, Recognized by: Directorate of technical Education (DTE), Govt. of Maharashtra, Affiliated to: Maharashtra State Board of Technical Education (MSBTE)

Institute level Odd Semester Academic Calendar 2017-18 for 0569-1608.

Sr no	Month	Activities	1st Year	2nd ,3rd Year	Responsible Person	Remark
1	June	D.T.E Approved Centralized Admission Process (CAP) Awareness Program	After S.S.C Result			
2	June	ISTE approved Faculty Development program on NBA Accreditation	12-17 June 17			
3	June	Induction program for Newly joined Staff	15 June 17			
4	June	Registration& Collection of Fees	At the time of Admission	15-17 June registration	Mr. Nadeem (Accountant & Team)	
5	June	Mock IAMC	20-21 July 17	16-17 June 17		
6	June	Commencement Of Semester	*17th July 17	19th June 17	Institute	
7	June	Meeting with Principal H.O.D's and All Staff (GFM)	17 June 17		Principal & Registrar	
8	June	*Ramdan holidays*	*23-28 June 17*		Institute	Tentative
9	June	*ISO external Audit*	*June Last Week*		ISO MR /DMR	

ANJUMAN-I-ISLAM'S
A.R. KALSEKAR POLYTECHNIC

Approved by: All India Council for Technical Education (AICTE), New Delhi, Recognized by: Directorate of technical Education (DTE), Govt. of Maharashtra, Affiliated to: Maharashtra State Board of Technical Education (MSBTE)

Sr no	Month	Activities	1st Year	2nd ,3rd Year	Responsible Person	Remark
2	July	Project Allotment	NA	1st week of July 17	Project Coordinators	
3	July	Improvement Test	After completion of every 20% Syllabus		Subject Teacher	*(Submit the marks coordinator*
4	July	Eligibility for DSY & FY (Readmission & Branch transfer)	As per MSBTE Dead Lines	As per MSBTE Dead Lines	Dept. Clerk & OS (IST & IIND shift)	
5	July	Industrial visit	Department level		All HOD's & Class coordinator	As per EAMC Requ
6	July	Experts Lectures	Department level		All HOD's & Class coordinator	As per EAMC Requ
7	July	Personality development	Department level		All HOD's & Class coordinator	As per EAMC Requ
8	July	Industrial Trainings deputations Other Trainings deputations	Department level		All HOD's	As per EAMC Requ
9	July	CR meet 1 with principal & Academic Coordinator	19 July 17		All HOD's & Academic Coordinator	Seminar Ha
10	July	Display of 1st Month Attendance list on Departmental Notice board on 21st July 2017	Form 19th June to 20th July 17		All HOD's	Submit the report Below 75% attenda to Principa
11	July	Staff Feedback 1	24-26 July 17		HOD's	Below 70% feedbac should be submit to & Academic Coord
12	July	GFM Staff meeting with Principal & H.O.D's	26th July 17		HOD's	If required then Visi
13	July	Canteen Feedback with Staff & Students	Last week of July 17		Canteen coordinator	

Fig 4.9: Key Dates.

➢ **Websites:**

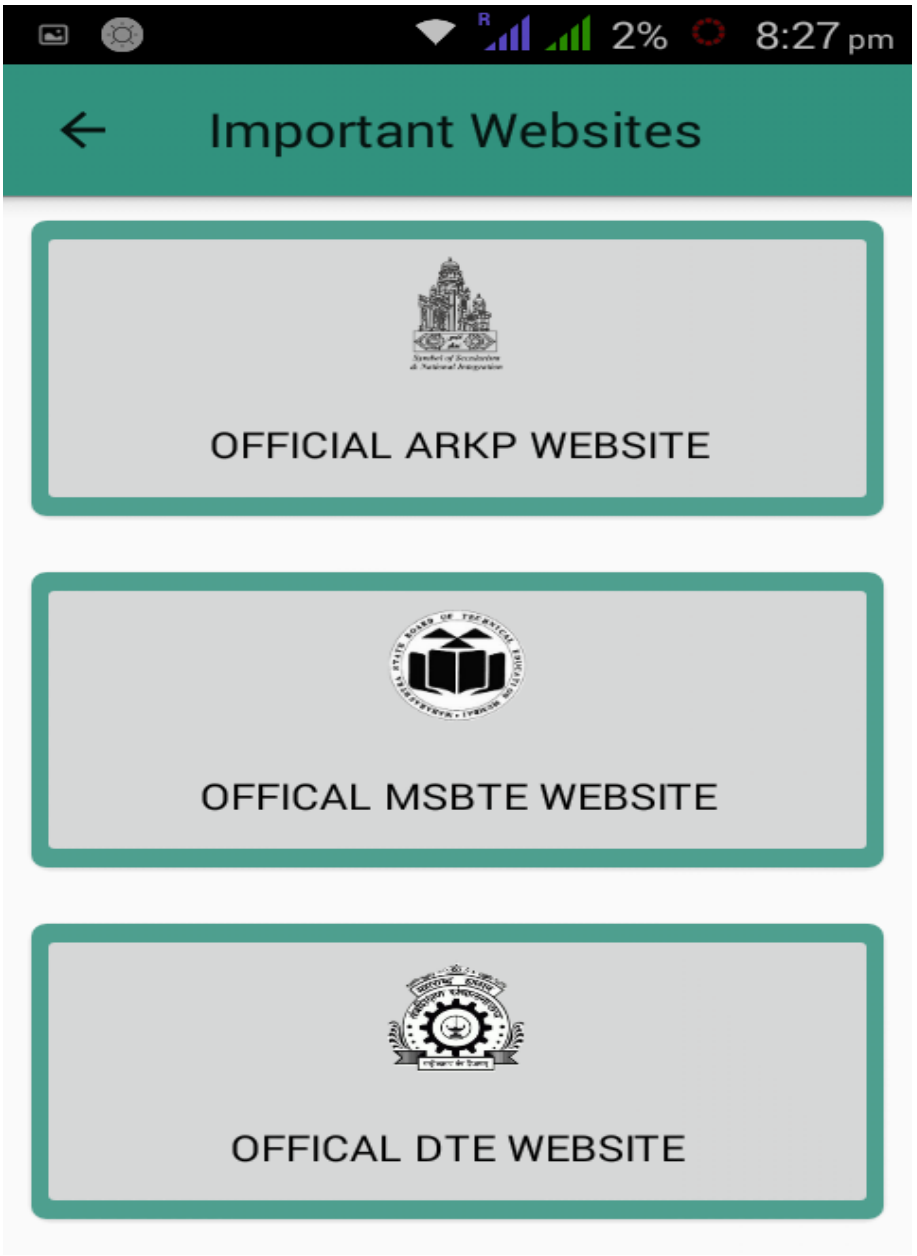


Fig 4.10: Websites.

➢ Admission Steps:

- **Tab1:**

Fig 4.11: Admission Steps (Tab 1).

- **Tab2:**

Fig 4.12: Admission Steps (Tab 2).

- **Tab2:**

  -Option 1 (Admission Form Filling)

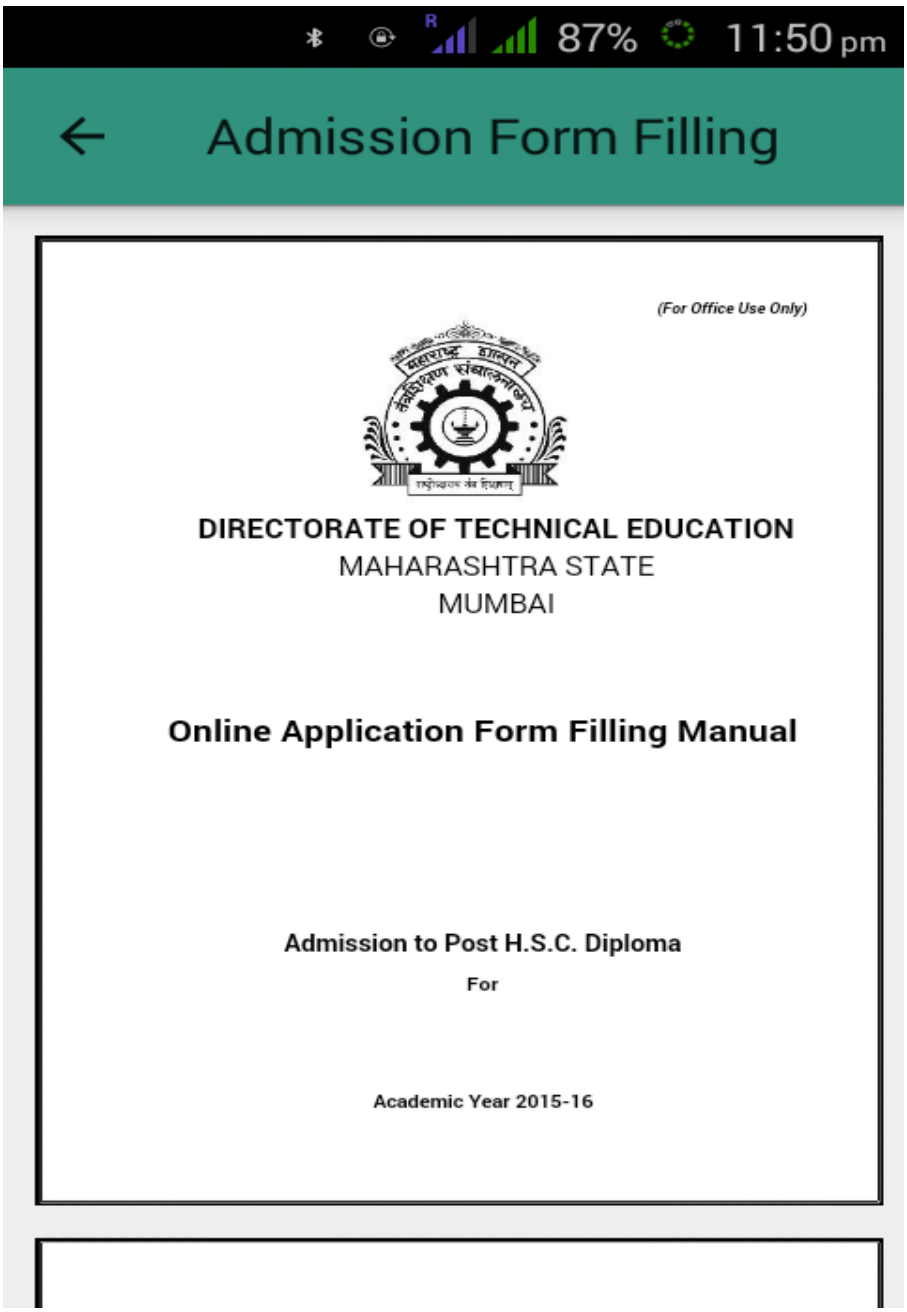
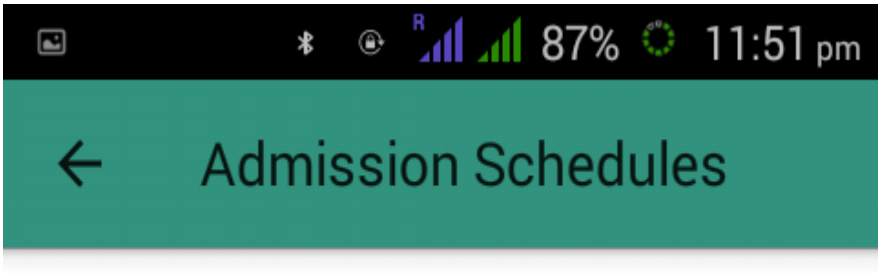


Fig 4.13: Admission Steps (Tab 2 (Option 1 (Admission Form Filling))).

-Option 2 (Document Requirement)

Fig 4.14: Admission Steps (Tab 2 (Option 2 (Document Requirement))).

-Option 3 (Admission Schedule Dates)



Schedule of Activities for First Year Engineering/Technology Admissions 2015-2016

Sr. No.	Activity	Schedule	
		First Date	Last Date
1.	Sale of Application Kit, Online filling & Submission of Application form through the web site at http://www.dtemaharashtra.gov.in/fe2015 for all candidates. • For Maharashtra and Outside Maharashtra Candidates through ARC only. • For J&K Migrant Candidates through designated AXIS bank branches (during banking hours from 6th June 2015 onwards) in Jammu & Kashmir. • Document Verification and confirmation of Online Application form by Maharashtra and All India candidates in person at ARCs.	05/06/2015	18/06/2015
2.	• J & K Migrant Candidates should send the application form for verification & confirmation to Sardar Patel College of Engineering, Versova Road, Munshi Nagar, Andheri (West), Mumbai-400 058	06/06/2015	25/06/2015 upto 5:00 PM
3.	Display of Provisional Merit for CAP Rounds (Maharashtra State candidates) on web site.	22/06/2015 at 11:00 AM	
4.	Submission of grievance applications, if any, by Maharashtra State, All India candidates at respective ARCs.	22/06/2015	25/06/2015 upto 5:00 PM
5.	Display of Seat Distribution.	25/06/2015 at 5:00 PM	
6.	Online Submission & Confirmation of Option Form of CAP Round-I through candidates Login by himself/herself through the web site by Maharashtra State and All India candidates.	26/06/2015	28/06/2015 upto 5:00 PM
7.	Display of final merit (Maharashtra State and All India@ candidates) on web site @- Subject to declaration of JEE (Main) 2015 (Paper 1) All India Rank by CBSE	26/06/2015 at 11:00 AM	
8.	Display of Provisional Allotment of CAP Round-I for Maharashtra State & All India Candidates.	30/06/2015 at 5:00 PM	
9.	Reporting to the institute as per allotment in CAP round-I	02/07/2015	05/07/2015 up to 5:00 PM
10.	Display of Institute wise vacancy position for CAP Round-II	06/07/2015 at 11:00 AM	
11.	Online Submission & Confirmation of Option Form of CAP Round-II through candidates Login by himself/herself through the web site by Maharashtra State and All India candidates	06/07/2015	08/07/2015 up to 5:00 PM
12.	Display of provisional allotment of CAP Round-II	10/07/2015 at 5:00 PM	
13.	Reporting to the institute as per allotment in CAP Round-II	11/07/2015	16/07/2015 up to 5:00 PM
14.	Display of Institute wise vacancy position for CAP Round-III (by counseling)	16/07/2015 at 5:00 PM	
15.	Round of Admission CAP Round-III (by counseling) only for the Maharashtra State candidates in person (Separate Notification for this round shall be published on website)	20/07/2015 9.30 AM	25/07/2015
16.	Reporting to the institute as per allotment in CAP Round-III(by counselling)	26/07/2015	30/07/2015 Up to 5:00 PM
17.	Commencement of academic activities for All institutes	27/07/2015	
18.	Display of number of vacancies choice code wise	03/08/2015 At 5:00 PM	
19.	Online Submission & Confirmation of Option Form through candidates Login by himself/herself through the web site.Candidates can give maximum of 25 choice codes.	03/08/2015	06/08/2015 Up to 5:00 PM
20.	Confirmation of option form at Government & Aided Engineering college by paying Rs 100/- in CASH. list of colleges is displayed on website.	05/08/2015	06/08/2015 Up to 5:00 PM
21.	Display of provisional allotment on website.	07/08/2015 At 5:00 PM	
22.	Reporting to the Institute	08/08/2015	11/08/2015
23.	Cut off Date for all type of admissions for the Academic Year 2015-16	14/08/2015	

Fig 4.15: Admission Steps (Tab 2 (Option 3 (Admission Schedule Dates))).

-Option 4 (Admission Guidelines)

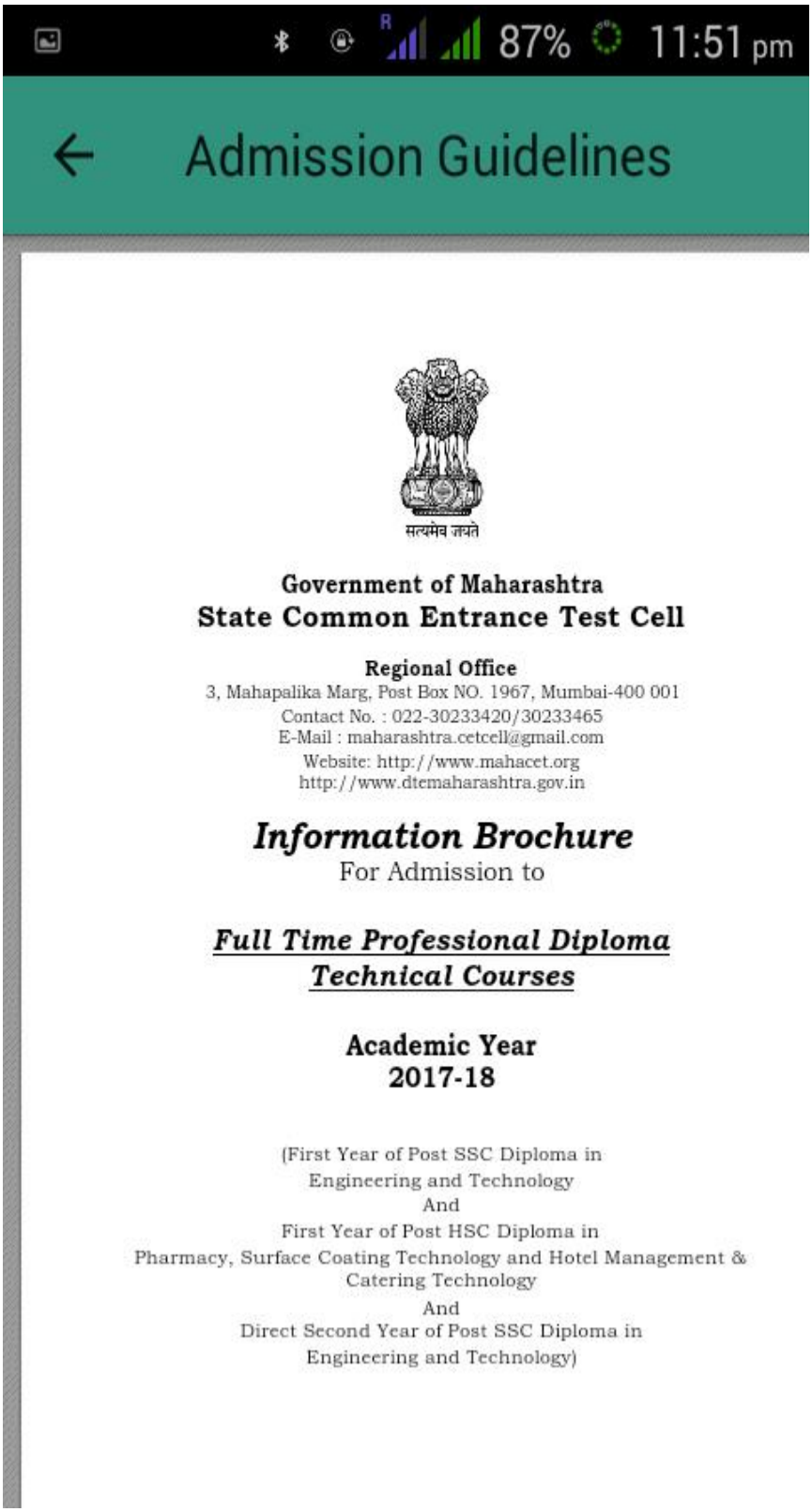


Fig 4.16: Admission Steps (Tab 2 (Option 4 (Admission Guidelines))).

-Option 5 (Fees Structure Approved)

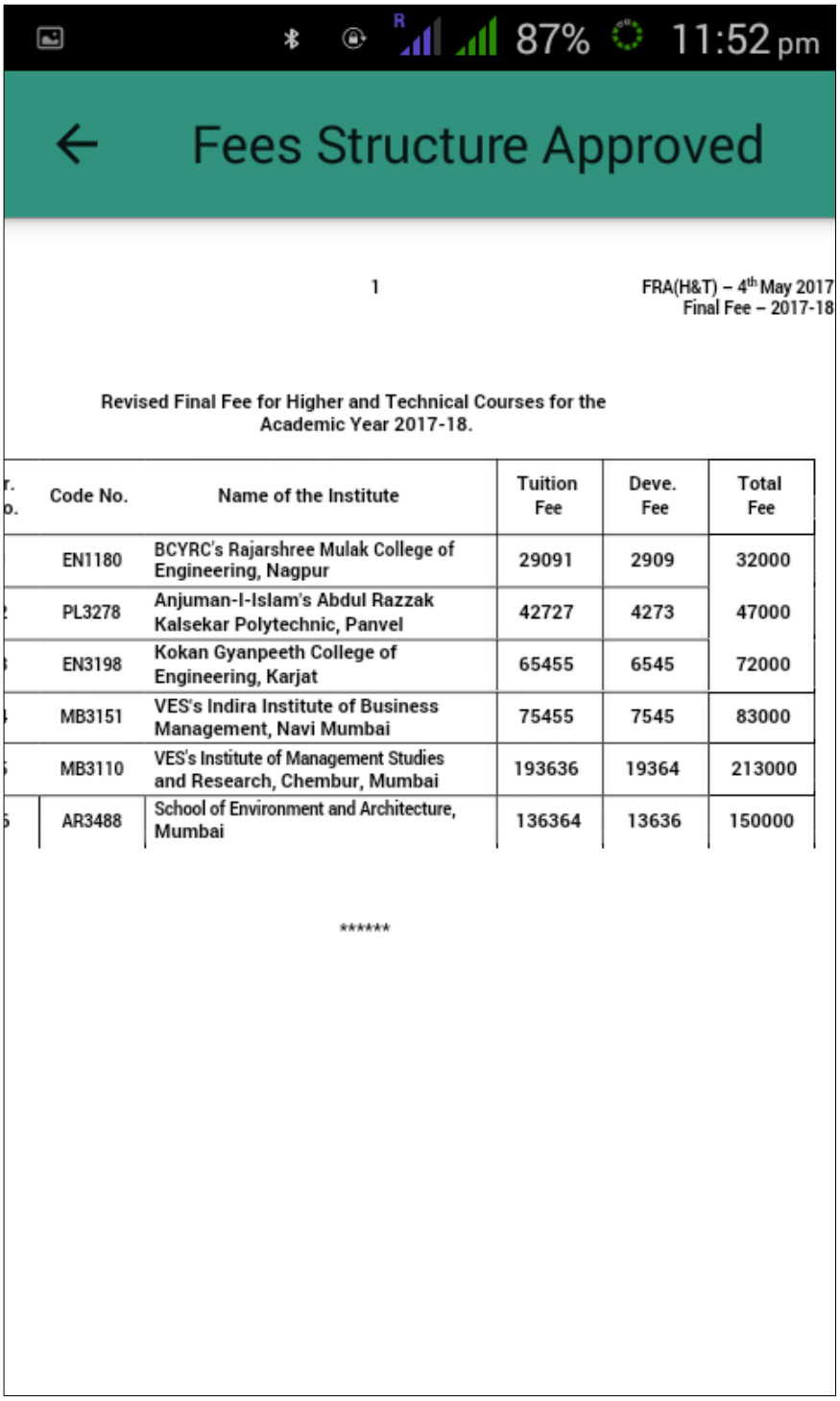


Fig 4.17: Admission Steps (Tab 2 (Option 5 (Fees Structure Approved))).

-Option 6 (Fees Structure)

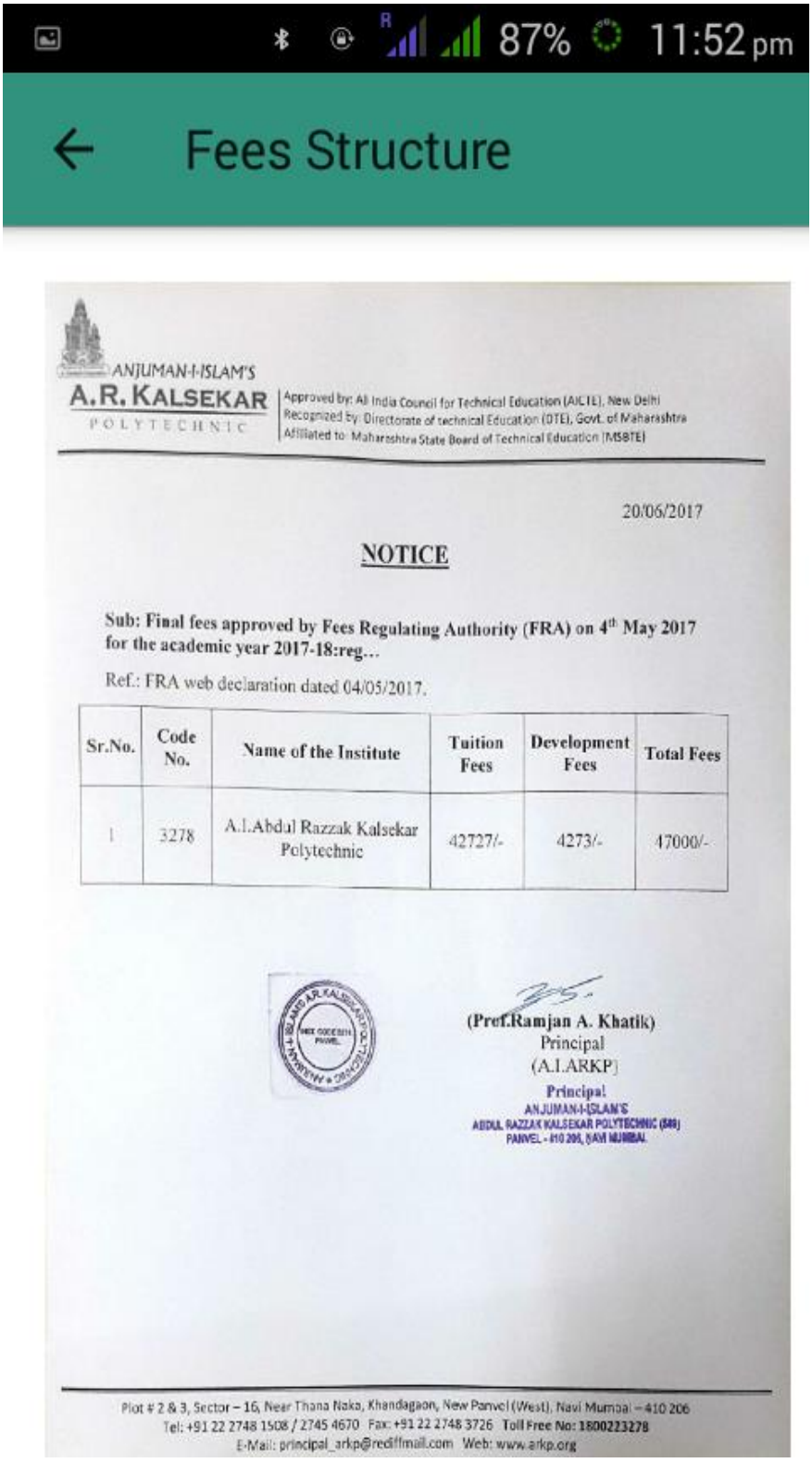
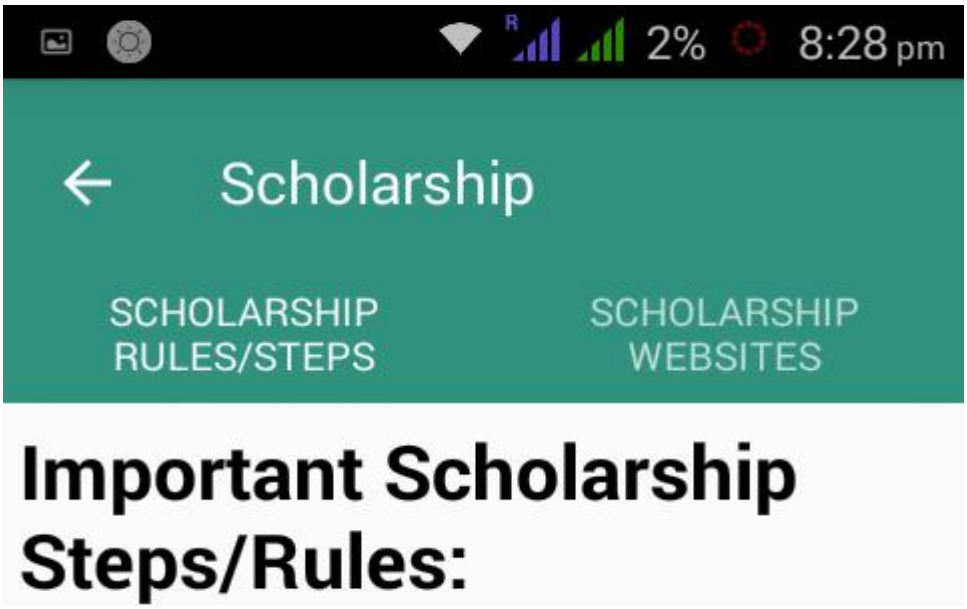


Fig 4.18: Admission Steps (Tab 2 (Option 6 (Fees Structure))).

- **Scholarship:**

- **Tab1:**



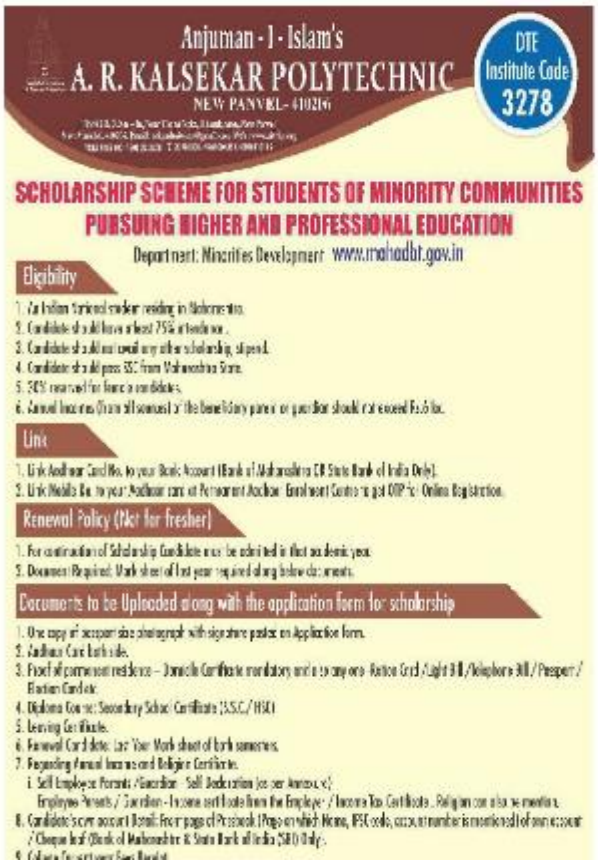


Fig 4.19: Scholarship Steps/Rules (Tab 1)

- **Tab1:**

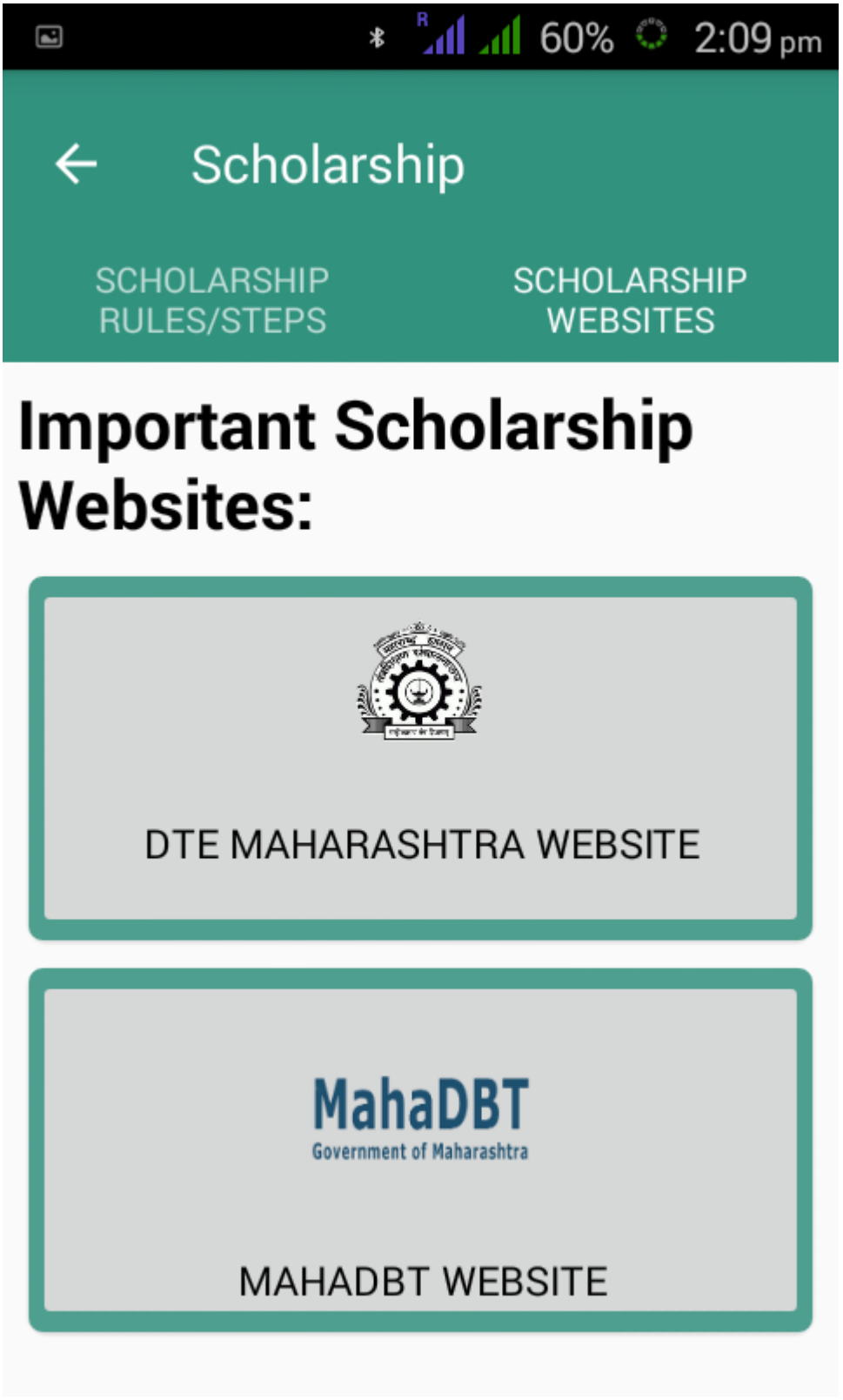


Fig 4.20: Scholarship Websites (Tab 2)

- **Live Chat Bot:**

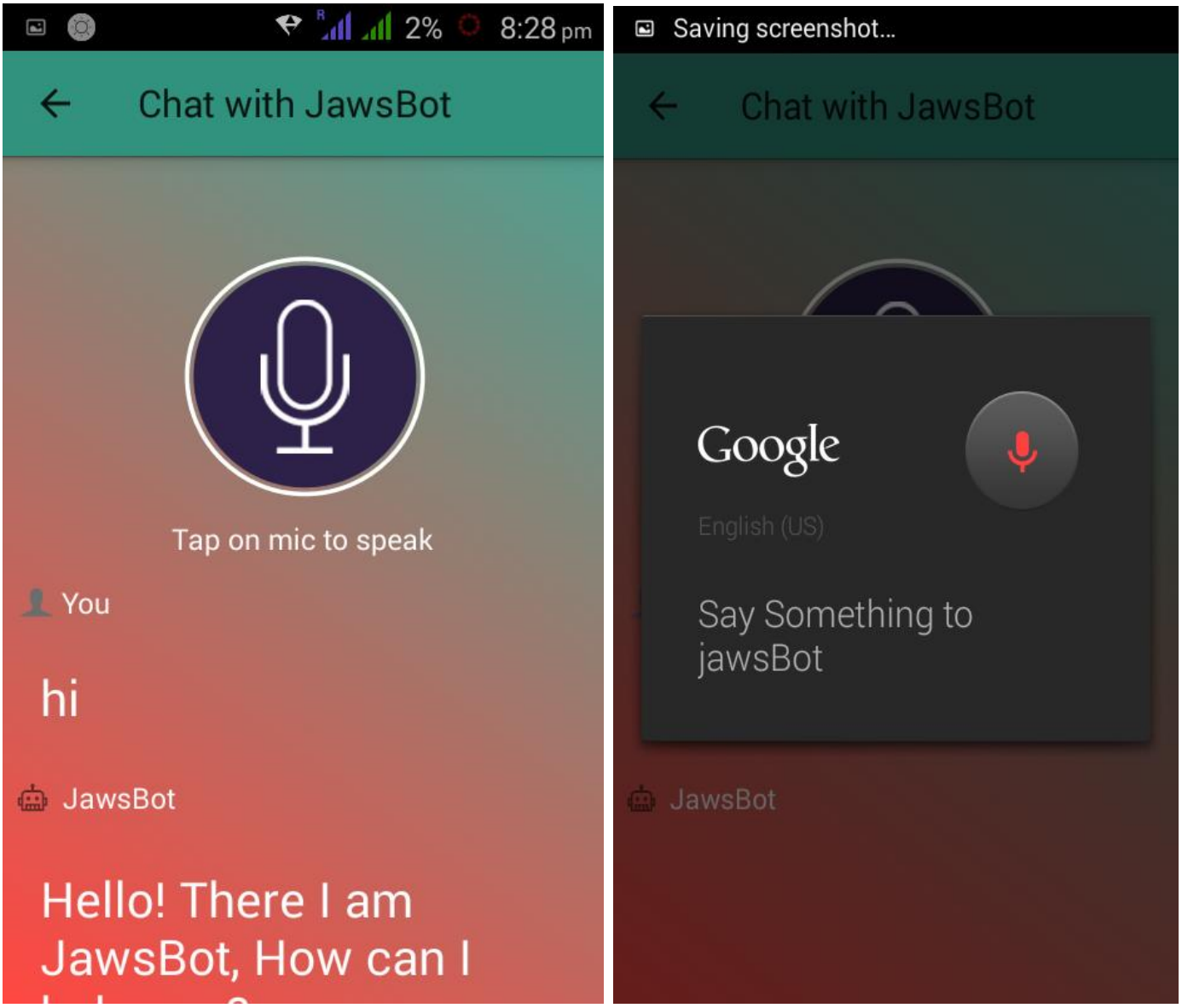


Fig 4.21: Live Chat Bot.

CHAPTER: 5

FUTURE WORK

- Current system provides only information about Diploma Level this app not that useful for Degree Level.
- More Answers to Questions wil be added in **Chat with Bot** Option in future.
- We have developed this app only for single college, in future we will add more colleges to this app.
- In future we will add online Form Filling with Online payment.
- GUI can be much more enhanced using XML.
- More Features will be added in future that wil give provide more Admission Guidance to Candidates.

CHAPTER: 6
CONCLUSION

The "AI-ARKP Admission Guidance" has been developed to satisfy all proposed requirements. The AI-ARKP Admission Guidance is easy to evaluate the final year project which is marked by the student of the final year and can be accessed from wherever you want. Almost all the system objectives have been met. The system has all project data of previous year student.

The package is developed in manner that it is user friendly and required help is provided at different levels. The system never decreases the manpower but helps the development of available manpower abilities optimizes the manpower to next level. The system minimizes the time and efforts in the manual and it eliminates the human errors too zero level while creating their own project given by institute in a system manner and good format.

The design of AI-ARKP Admission Guidance is flexible ensuring that the system can be implemented and gone through all validation. All phases of development were conceived using methodologies. User with little training can use our project.

The software executes successfully by fulfilling the objectives of the project. This is flexible if upgraded and it can be implemented on higher authority organizations. The paperwork is very difficult to manage the data. In online system, it is very easy and secure to manage.

The main focus of project is to reduce human efforts. The maintenance of the records is made efficient, as all the records are stored in the Firebase database, through which data can be retrieved easily. The user has to just press the button to gain information of admission process.

So, we have created an android application for admissions guidance where it will provide admission guidance to the candidate or users. It will guide the candidate for Kalsekar College only. It will give brief information about kalsekar that where is kalsekar located and what is the cutoff, placement and etc. Then we are having predictor feature it will help the candidate to find suitable field according to their percentage or marks that he scored in SSC or HSC. We have giving a brief information about kalsekar who founder is, events and many more activities. We are also giving the notification to the candidate like when will be the last date of admission form submission, scholarship form submission, and many more college events. Our main is to promote our college through online App after the candidates or user has logged in the details of candidate or user will be stored in our database which will give an idea how many candidates or users are interested in our college. Our App will reduce the time, effort and money of candidates.

CHAPTER: 7

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